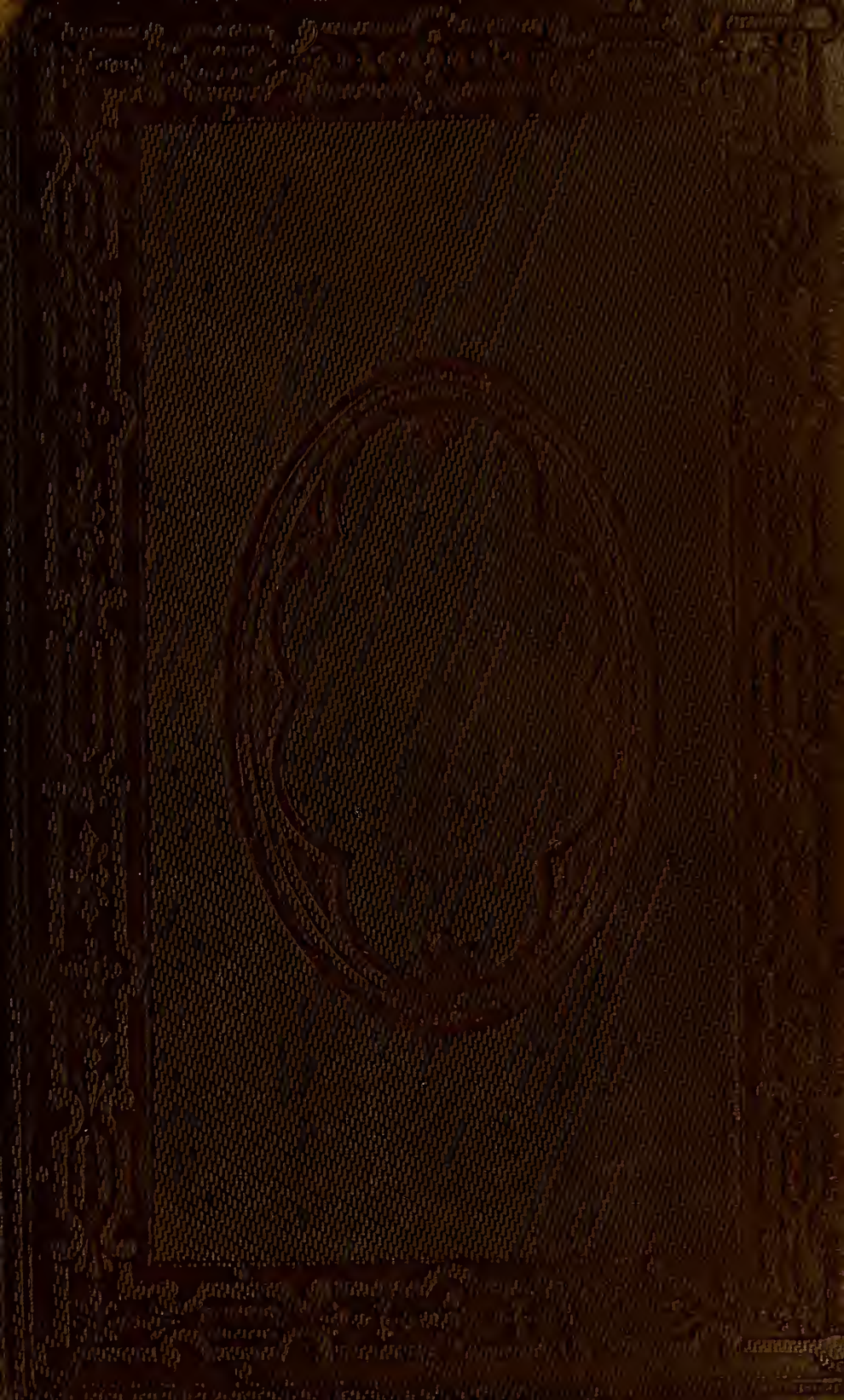

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A TREATISE

ON THE

DISEASES, INJURIES, AND MALFORMATIONS

OF THE

RECTUM AND ANUS.

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A TREATISE

ON THE

DISEASES, INJURIES, AND MALFORMATIONS

OF THE

RECTUM AND ANUS.

BY

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SURGEON TO THE BLENHEIM DISPENSARY,
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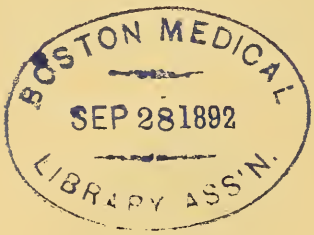

PREFACE.

THE frequency and severity of the Diseases of the Rectum and Anus, impressed me, at an early period of my professional life, with the importance of studying their pathology and treatment, and the frequency with which these maladies occur necessarily afforded a wide field for observation.

When the treatment of these affections first occupied my attention, I greatly felt the want of a book to which I could refer for information on some of the more obscure and difficult cases. In the systematic works on Surgery I found the subject but superficially treated; and though several excellent monographs have been published, the authors have confined their observations to certain of the affections only; among these stand pre-eminently the writings of Mr. Pott, Mr. Copeland, and Mr. Syme. The treatise of Dr. Bushe of New York, who unfortunately died shortly after its publication, is the only one with which I am

acquainted that embraces the whole subject, and from it I have gained much valuable information. To Mr. Syme, of Edinburgh, belongs especially the merit of enforcing upon the attention of the Profession, by his writings and practice, a simple, rational and efficacious mode of treating several of these affections, and of endeavouring to unmask the empiricism into which their treatment has chiefly fallen.

The Lectures of Sir Astley Cooper and of Sir Benjamin Brodie contain much useful information, and are replete with practical observations.

If, in the following pages, I have propounded no new theories, or advanced any novel or peculiar mode of cure, I have endeavoured to give a simple narrative of the nature, causes, symptoms, and the result of my experience in the treatment of the several diseases of this region. I have also quoted the opinions of various authors who had previously written on the subject, either in support of the principles I have adopted, or to illustrate in what respect I differ from them. And I am not without a hope that this work may be of service to those members of the profession who have not had many opportunities of becoming practically acquainted with these diseases, and be the means of enabling them more efficiently to relieve the sufferings of those committed to their charge; lastly, if I have not accomplished

the object of my desire, I trust the failure will be found to belong rather to the form and composition than to the matter, which is derived from a close study of the literature of the subject, and a considerable share of practical experience.

31, Cavendish Square,
January, 1854.

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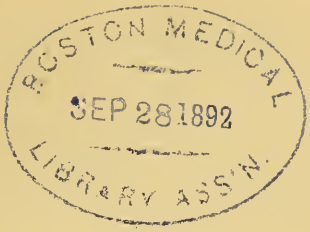

INTRODUCTION.

In the whole range of surgical pathology no class of diseases among civilized communities is so prevalent, causes more suffering, and induces so many varied and distressing sympathetic affections as diseases of the rectum; happily for the sufferers none succumb more readily to judicious, and, in the majority of cases, to simple treatment, when it is put in force at an early period of the affection; but unfortunately it often happens, from a mistaken delicacy on the part of the patients, that they postpone seeking proper advice till the constitution has become seriously deranged, or the local affection no longer endurable; or, under preconceived and erroneous notions as to the nature of the affection, or from the prominence and severity of some one of the sympathetic effects, they are induced to adopt a variety of empirical remedies which fail to afford the desired relief

and restoration of health, and are often productive of the most pernicious results.

From the important functions of the rectum, from the constant or recurrent pain attending diseases affecting it, induced each time the bowels evacuate their contents, and the serious constitutional disturbance and remote sympathies they excite, these diseases require the careful attention and deep consideration of the surgeon. Formerly some of these affections, which in reality are very simple in themselves and easily relieved, rendered the subjects of them the victims of the most painful and in many cases dangerous operations. But by the advance of surgical science and the study and observation of their nature, even the most painful of the affections may generally be remedied by medical treatment; and when an operation is necessary for the removal of morbid structure or for the purpose of inducing a healthy reparative process, it is simple in character, quickly performed, occasioning but a slight amount of pain, and confining the patient for only a very limited period. Thus fistula in ano which, comparatively a short time since, was considered among the heaviest afflictions that flesh is heir to, from the barbarous treatment that was then practised and considered necessary, as a consequence of the false notions and erroneous pathological principles that prevailed, and

which led to the scooping out of the parts in the track of the fistula, or to the extensive destruction of the surrounding tissues by corrosive unguents, is now remedied by a slight incision, performed in a few seconds, and occasioning the loss of only a few drops of blood. It was only a few years since it was deemed essential for the cure of fissure of the anus to entirely divide the sphinter muscle, but it is now proved that when an incision is required it is not necessary to make it more than a few lines in length, and to extend it no deeper than through the mucous and submucous tissues.

The constitutional origin of these local affections and their reaction on the general system, when their cause has been extrinsic, must always be borne in mind, for if this be over-looked, our hopes of success in the treatment will often not be realized.

Besides prescribing proper remedies and giving strict injunctions with regard to diet and exercise, it is advisable that the surgeon should apply the dressings with his own hands, for though there is no difficulty in the matter, and little skill required, yet it is essential to the comfort and recovery of the patient that they should be accurately and properly adjusted; nurses and attendants, from not thoroughly apprehending the object to be attained, are too apt either to cram and distend the parts with the dressings, or not to

approximate them with sufficient nicety ; he should also exhibit the enemata unless he has some intelligent and trustworthy person on whom he can rely. These matters may appear comparatively trifling, but if they pass unattended to we shall often be disappointed in the result of our treatment, let it in other respects be ever so skilfully and well directed.

All instruments used for the purpose of injecting enemata should be provided with elastic gum jets instead of those made of metal or ivory ; more especially if they are used by patients themselves, as they are not likely to inflict injury with them. When it is intended by enemata to unload the colon of accumulated fæcal matter impacted in its sacculi and distending that intestine, a long elastic tube known as " O'Beirne's tube," should be passed up the bowel, and the fluid injected by means of a well made double action pump ; previous to the pipe being introduced into the bowel the air should be expelled from, and the instrument filled with fluid by a few strokes of the piston ; this is very important, for if neglected the patient's bowels will be distended with flatus causing much pain and annoyance.

It is stated by all English writers on the subject, that diseases of the rectum prevail almost entirely in the better classes of society ; from opportunities I have had I can vouch that this statement is erroneous,

and that they exist among the working classes to an incredible extent, but from certain prejudices and popular opinions they entertain, as well as from other reasons, they seldom seek relief at our hospitals.

CHAPTER I.

IRRITATION AND ITCHING OF THE ANUS.

Itching at the anus is not an uncommon affection; it is more generally a symptom of disorder or irritation in some portion of the alimentary canal than a substantive disease; but so distressing is it in many cases that it forms the most prominent feature of the patient's ailments. It occurs more frequently at or after the meridian of life than at an earlier period, though it is occasionally met with at all ages. It is most commonly caused by the presence of ascarides in the rectum or of other entozoa infesting some portion of the intestinal tube; by the accumulation of fæces in the rectum and colon; by the improper use of mercurial and other purgatives; by irritation about the neck of the bladder and prostate gland; by derangement of the digestive organs, and a depraved condition of the excretions and secretions, particularly of the liver and kidneys. It may follow the recovery from dysentery, and very frequently precedes and accompanies hæmorrhoidal and other affections of the

rectum. It not unfrequently occurs in females at the period of the cessation of the menstrual function. Errors of diet, particularly the indulgence in highly seasoned dishes and too great a quantity of wine will produce it ; unwholesome food will also have the same effect ; this was illustrated in the case of a professional friend who suffered severely from this affection, induced by indulging his taste for game that had been kept till it had become completely putrid ; the disease left him shortly after the shooting season was over ; and the following year, being dissuaded from gratifying his appetite for the unsavory food, he was free from the affection, save on one or two occasions when he could not refrain from partaking of some birds that were particularly high.

Itching of the anus commonly occurs in feeble and debilitated constitutions ; and is sometimes accompanied by an eruption of papulæ or tubercles which may also coexist in other parts of the body, but in the greater number of cases no eruption will be perceptible. The itching is often most distressing on getting warm in bed, and frequently prevents the patient sleeping till he is completely worn out.

When the disease is of long standing, and the patient has yielded to the strong incentive to scratch and irritate the part, the skin around the anus will become thickened and furrowed, the furrows assum-

ing a radiated direction diverging from the centre of the anus. They vary in number and length, and though often deep are generally free from ulceration, if due attention to cleanliness is observed ; but should this have been neglected, and irritating secretions have accumulated, inflammation will be induced, followed by excoriation and ulceration.

Some authors think that a pruriginous state of the anus ought not to be interfered with, as it wards off more serious diseases, and they instance cases in which, after the itching has been relieved by treatment, or subsided spontaneously, death has followed ; but they do not support their suppositions by evidence of accurate and minute post-mortem examinations, moreover their want of knowledge of those obscure and frequently suddenly fatal diseases of the heart and minute vessels of the brain with which we have recently become acquainted by the observations, and pathological researches into the changes of structure by Dr. Quain,* Mr. Paget † and others, must make us hesitate to receive their inferences as correct ; even were it not, as has already been stated, that pruritus ani is more frequently a symptom and effect of

* " On Fatty Diseases of the Heart," by R. Quain, M.D., Medico-Chirurgical Transactions, vol. xxxiii.

† " On Fatty Degeneration of the Vessels of the Brain."—Medical Gazette, New Series, vol. x. p. 229.

disease of structure or function in some one or other of the viscera than a purely local affection.

In the treatment of this very obstinate and troublesome disease, great patience and perseverance will often be requisite both on the part of the patient and medical attendant. By the latter it must be borne in mind, that the affection is rather a symptom of constitutional derangement than a disease *sui generis*, therefore the first endeavour must be to ascertain the cause producing it. In females when the menstrual function has ceased, or is about to do so, it will be most important to keep the bowels free, to attend to the secretion of the liver, kidneys, and skin, and to direct exercise in the open air to be taken daily. If ascarides in the rectum give rise to the affection, they must be dislodged by such means as are recommended in treating of the subject under the head of foreign bodies in the rectum.* If hæmorrhoidal tumours or condylomata exist, they must be removed by excision, unless the hæmorrhoids are internal, in which case the ligature or concentrated nitric acid must be employed. Should the patient be delicate and his habits sedentary, plain and nutritious food will be necessary, conjoined with proper exercise and the administration of alterative, tonic, and chalybeate medicines; but if the contrary be the case, and he

* Chap. XVIII.

has been accustomed to indulge in highly seasoned dishes, and to partake freely of wine and spirituous liquors, he must be restricted to a vegetable diet, and the quantity of stimuli considerably reduced, if not altogether disallowed ; various remedies have been recommended in this disease, and will be found more or less efficacious according to the circumstances of the case ; among them may be mentioned the decoction and infusion of cinchona with nitric or nitro-hydrochloric acid, and the various preparations of iron ; the bowels must be acted on by the occasional use of purgatives. When an eruption exists on other parts of the body, five grains of the compound pill of chloride of mercury should be taken at bed-time, or the same quantity of mercury and chalk with hyoscyamus, conium, or extract of poppy ; and the compound decoction of sarsaparilla, two or three times a day ; when the gums become tender the quantity of mercury must be reduced or even left off for a short time, as ptyalism to any extent must be avoided. It will be advisable to continue the remedies for a few weeks after the disease has subsided, in order to guard against a relapse.

The due attention to the functions of the skin has been insisted on, and much advantage as well as comfort will be derived from the use of the warm-bath every second or third day.

The local remedies that will be found most useful are lotions containing acetate of lead with wine of opium, lime-water and calomel, or the bichloride of mercury, the bicyanide of mercury in bitter almond mixture, or a saturated solution of biborate of soda, ointments of lead, zinc, nitrate of mercury, &c.; but that which will frequently be found most serviceable, is brushing the part over with a solution of nitrate of silver so as to produce a slight exfoliation of the skin. I lately attended a gentleman, connected with one of the large banks in the city, who suffered most severely from this affection; he had received advice on various occasions, but had not found benefit from the medicines ordered. On making an examination the thin skin of the anus was observed to be dry and inelastic, and intersected by slight cracks. His general health was deranged by too close application to business. I prescribed a combination of aperient and tonic medicines, and used a solution of nitrate of silver to the part on three occasions, entire relief followed, and his general health improved. He now takes more exercise, and is quite well.

CHAPTER II.

INFLAMMATION AND EXCORIATION OF THE ANUS.

Simple inflammation and excoriation of the anus is not of infrequent occurrence in warm weather, particularly in individuals disposed to obesity. Long continued walking, horse exercise, long journeys in carriages with soft and warm seats, often produce it. It may also be a consequence of errors in diet, or indulgence in high living ; the too frequent use of large doses of calomel and cathartic medicines, will often excite inflammatory action in this region ; a vitiated condition of the excretions from the alimentary canal, the irritation of worms, of diarrhœa, and of dysentery, may be the exciting cause, and among the poorer classes they arise from a neglect of cleanliness.

The symptoms will be similar to those of superficial inflammation in other parts ; at first slight itching will be experienced, succeeded by a feeling of heat and smarting, which will be accompanied by redness and tumefaction ; walking and sitting, by the friction and heat which they cause, will increase the pain.

In directing the remedial means, the exciting cause must be first considered. If the inflammation and excoriation are the result of obesity and excessive exercise, either on foot, horseback, or riding many hours in a carriage, it will be only necessary to wash the parts two or three times a day, and to apply pounded lapis caliminaris, or hair powder, and to keep a fold of lint or linen between the buttocks; it may sometimes be advisable to enforce the observance of the horizontal position. Enemata will be the best means of keeping the bowels open. Should the cause depend on a depraved state of the excretions, this condition must be remedied by the exhibition of appropriate medicines, small doses of mercury and chalk, with extract of taraxacum, or blue pill with hyoscyamus and cathartic extract, to be taken at night, and the following morning, Rochelle salts, with infusion of senna, or a bitter tonic infusion; the sulphate of magnesia, dilute sulphuric acid, and the compound infusion of gentian, or infusion of cascarilla, make a good purgative; other similar combinations may be prescribed; the remedies are to be continued until the alvine discharges become healthy. The same local treatment as that previously recommended must be adopted. If dysentery or diarrhœa be the cause, the effect will subside with the cure of these diseases. If the abuse of

cathartic medicines has set up the disease, by the discontinuance of the cause the effect will be removed. When inflammation and excoriation have been produced by a neglect of cleanliness, the observance of different habits is the first step towards a cure; soap and water must be used several times daily; if the hair around the anus has become matted together by the discharge and filth, forming an incrustation over the excoriated surface, it must be softened by the application of linseed-meal poultices, and the free use of the hip-bath and soap; on no account must it be removed by cutting the hairs, otherwise the stumps left will cause much irritation and distress, until they have again attained a certain length. Some time since I witnessed the misery thus induced in a labouring man, and the excoriation prevented healing for a considerable time by this thoughtless procedure. When the parts are sufficiently cleansed, poultices, impregnated with opium and a solution of acetate of lead, or lint saturated with lotions of nitrate of silver, sulphate of zinc, or acetate of lead, may be kept to the parts; or ointments of the nitrate of mercury, bichloride of mercury, oxide of zinc, &c., may be applied. The recumbent position must be maintained, and the bowels acted on by cooling laxatives and emollient enemata.

CHAPTER III.

EXCRESCENCES OF THE ANAL REGION.

The fine skin surrounding the anal orifice and the mucous membrane at the verge of the anus are subject to various morbid growths, designated by authors of past ages by the fanciful appellations of scycoma, fici, mariscæ, cristæ, porrus, condylomata, verrucæ, &c. These growths differ much in appearance, consistency, and sensibility, some being acutely painful, whilst others occasion but little suffering. They occur more frequently in women than in men, most probably from the liability in the former of the anus being irritated by contact of discharges—simple and specific—from the vagina and uterus.

The loose folds of skin left by the collapsing of external piles sometimes take on a new and increased action, and by a species of abnormal nutrition, become the origin of tumours that may attain a considerable size. Mr. Mayo* describes a form of ex-

* "Observations on Injuries and Diseases of the Rectum," by Herbert Mayo, 1833, pp. 97—99.

crescence commencing as a fold of skin, and produced by irritation; he says, "When these little folds of skin originate from a local cause of irritation, they generally go away spontaneously; sometimes they shrink and disappear; at other times they perish by ulceration. The most common causes of their production is gonorrhœa, or leucorrhœa, when insufficient attention is paid to cleanliness.

These folds of skin at the sides of the anus sometimes enclose a considerable mass of dense white membranous substance, and form large, hard, fleshy tumours, or condylomata, which are commonly very painful.

A woman, æt. forty-eight, was under Dr. Watson's care, in Middlesex Hospital. She had been suffering for several years with pain and uneasiness, extending from the anus to the loins, and round the lower part of the belly, aggravated when the bowels acted, which were generally in a disturbed state, being either relaxed or constipated. All these symptoms depended upon two large thick condylomata, one on each side of the anus. I removed these tumours with a scalpel; the surface healed very quickly, and the patient was free from all the distress she had previously experienced.

Tumours of a fibrous character are sometimes found in this region: they do not often acquire a size

larger than a cherry. Mr. Curling* mentions having had a tumour of this kind sent to him by Mr. Howell, of Clapton, which had reached unusual dimensions; it had been excised from a gardener, forty-one years of age; it weighed upwards of half a pound, and was composed of fibrous tissue, arranged in several lobes; it had been pendulous, and attached to the margin of the anus by a narrow neck. There was an ulcer on its surface, produced, no doubt, by pressure in sitting and friction against the dress. This tumour had been seven years in forming.

But the growths most frequently met with in the region of the anus are of the nature of warts, and are produced by irritation, either from a want of cleanliness or contact of acrid secretions. They occur most frequently in the young adult subject of either sex; they are seldom solitary, several generally existing; they may occur in clusters, or the anus may be completely surrounded by them, forming one dense mass. While house-surgeon at University College Hospital, a patient, aged about eighteen, was under my charge, with a warty growth surrounding the anus, between two and three inches in diameter, and rising more than an inch above the integument;

* "Observations on Diseases of the Rectum," by J. B. Curling, p. 122.

the cause originating it was of a very suspicious character. As he would not, at first, submit to an operation, astringent and escharotic applications were made use of, but without much effect. I afterterwards attempted its destruction by ligature, but, owing to its density, only partially succeeded. In a similar case I would use the scalpel and remove the whole mass at once ; should bleeding occur, it might easily be restrained by ligaturing any vessel that required it, and by pressure with a pad of lint and a T bandage.

When warts are single, or grow in clusters, they should be removed by a pair of scissors, and if there is evidence of a strong predisposition in the individual to their formation, it will be advisable to apply the nitrate of silver to the cut surfaces. The patient should be directed to observe great cleanliness, and to use a lotion containing sulphate of zinc, acetate of lead or alum, in order to check any tendency to a reproduction of the growths.

The following cases will be sufficient, in illustration of the subject :

Condylomata from leucorrhœa.

Mrs. ——, æt. thirty-five, the mother of several children, had suffered from leucorrhœa for more than two years, the discharge being so profuse as to render her constantly

wet and uncomfortable; lumps formed on the labia, and about the anus, gradually increasing in size; the adjacent parts became excoriated and painful. Before coming under my care she had taken various medicines, and used lotions and ointments without benefit. It being evident that the morbid growths on the external parts arose from irritation, produced by the discharge from the vagina, an examination was made with a speculum, and ulceration of the os uteri discovered, which was also congested and enlarged; there was profuse muco-purulent secretion from the uterus and vagina.

The treatment adopted was leeches and the application of nitrate of silver, and afterwards alum injections; cicatrization of the ulcerated surface took place, and a healthy condition of the uterus and vagina restored. When the vaginal discharge had diminished the condylomata were removed by excision, and a fold of lint, saturated with lead lotion, applied; the wounds healed in a few days.

Condylomata from leucorrhœa.

M. A. P., æt. twenty-six, single, applied at the Blenheim Dispensary, May 24, 1853. She had been for some time subject to vaginal leucorrhœa, the discharge being very profuse. Tumours formed about the anus; they were not painful at first, but latterly she had experienced much smarting and discomfort. She was chlorotic; her eyes were dull; skin, gums, lips, and tongue, pale; arms flabby; menstruation irregular and almost devoid of colour. Mild purgatives, chalybeates, and vaginal injections were prescribed; the condylomata were excised, and a slightly

astringent lotion applied; ablutions with soap and water were used night and morning; the local disease was cured, and in a few weeks her general health had greatly improved.

Condylomata from irritation, by contact of opposed cutaneous surfaces.

W. G., æt. thirty-one, very stout, occupation sedentary, being engaged in a merchant's office in the city. Perspires freely; has always suffered from excoriation between the buttocks in warm weather; some excrescences had formed around the anus; he had been told they were external piles, and directed to use gall ointment, and to take sulphur and treacle; he experienced no relief, and the tumours increased in size, attended with great smarting and pain. His bowels were regular, and, in other respects, he enjoyed good health. On examination, three condylomata on the verge of the anus presented; they were dense and about the size of beans; the surrounding skin was excoriated, and bedewed with a copious secretion. I excised the tumours, and ordered a fold of lint, saturated in lead lotion, to be kept applied till the parts had healed. I also advised ablution, with soap and water, night and morning, and keeping the buttocks separated by a single fold of lint between them. The treatment adopted had the effect, in a few days, of removing all the discomfort he had previously suffered.

CHAPTER IV.

CONTRACTION OF THE ANUS.

Contraction of the anus is productive of serious inconvenience and distress to the patient ; it is not a common affection at the present day, but when it was the custom to treat fistula in ano by extensive incisions, to scoop out the sinus and surrounding indurated parts, or to destroy the tissues extensively with escharotics, it must have been a very general result of such surgical interference. Mr. Pott, deprecating De la Faye's treatment of fistula, as causing contraction of the anus, says,* "If M. De la Faye had ever, in his own person, had the misfortune to experience the inconvenience arising from the loss of skin near to the fundament, or had he attended to that which it produces to those who, either from choice or necessity, ride or walk much, I am inclined to believe he would have been more sparing of it."

* "The Chirurgical Works of Percival Pott," edited by James Earle, 1790. Vol. iii. p. 133.

M. De la Faye himself was not insensible of the evil resulting from his plan of treatment, and to guard against it, advised the introduction of tents; the following are his words: "Lorsqu'on a coupé dans l'operation une portion considerable du bord de l'anus, et que les chair commencement a remplir le vuide, il faut mettre dans l'ouverture de cette partie une tente, un peu courte, qui en empechant le retrecissement lui conserve son diametre," but which it will often do, in spite of all the tents in the world.

The causes producing contraction of the anus are, loss of substance by ulceration, or by wounds, either accidental or caused by surgical operations. In the Chapter on Piles their excision is alluded to as a cause of this condition of the anus; and I may here repeat, that the surgeon, in removing external piles, cannot be too careful not to take away more of the skin than is absolutely necessary, and he should also avoid an error I have several times seen committed, that of excising the œdematous ring of integument and cellular tissue around the anus, caused by irritation in the rectum, and very generally accompanying inflamed internal hæmorrhoids. Contraction also results from inflammatory action, inducing infiltration of lymph in the areolar tissue of the anus, or effusion of the same material on the surface of the mucous membrane, which, becoming organized, forms

false membranes and filamentous bands, reducing the capacity of the opening, and interfering with its power of dilatation.

The matter of syphilis and gonorrhœa coming in contact with the anus, in those who are regardless of cleanliness, produces a form of contraction first described by Mr. White,* as follows: "Not unfrequently a contracted state of the rectum occurs as a consequence of the venereal disease. When the disorder proceeds from this cause, it generally commences with an appearance either of ulceration or excrescence about the verge of the anus. The sphincter ani becomes gradually contracted, and, the disease extending upwards within the rectum, a considerable thickening and induration of the coats of the intestine takes place, which produce great irregularity and contraction of the passage. Sometimes there is a continued line of contraction from the anus, as far as the finger can reach, then terminating in a kind of cartilaginous border, the inner membrane having a thickened and condensed feel. There is a discharge indicating a diseased, if not ulcerated, state of the inner membrane, above the contracted portion of the intestine. All the cases which I have hitherto met with of this nature, have

* "Observations on Strictures of the Rectum and other Affections," by W. White, Bath, 1820, p. 18.

occurred in females, and they have uniformly proved incurable, when attended with the structural derangement just described."

Contraction of the anus is sometimes congenital ; if the opening is not very small it may not attract attention in the early period of infancy, from the evacuations being fluid, and passing without much difficulty.

The symptoms in this affection are very similar to those of contraction of some portion of the canal above the anus ; the pain will not be so severe as in stricture of the rectum, neither will there be the constant purulent discharge which attends the latter disease. The fæces will be passed with difficulty and pain ; they will be compressed and figured, and, if they are solid, a sense of bulging out of the anus and perineum will be experienced during their passage. From the sufferings occasioned the patient is often induced to postpone the calls of nature, but generally has reason to repent doing so, for the fæces, accumulating and becoming hard, considerably increase the pain and difficulty in defecating. In such a case it is no infrequent occurrence for the mucous membrane to be lacerated longitudinally by the passage of the stool, constituting fissure of the anus ; spasmodic contraction of the sphincter will be super-

added, attended with violent aching, for a longer or shorter interval, whenever the bowels act.

Those who suffer from this condition of the anus generally conceive they have stricture of the rectum ; however, we have the satisfaction of being able to assure the patient that the disease is of a much less serious nature, and we shall further be able to promise not only a speedy but effectual cure.

Digital examination will cause considerable pain, which will be greater if fissure coexists, but by it we can ascertain the nature and extent of the disease ; if the patient is very nervous, or very sensitive to pain, chloroform may be inhaled previously to the examination being made.

The treatment must be both medical and surgical. If inflammatory action be present it must be subdued by topical blood-letting, hot fomentations, and cataplasms. The bowels must in all cases be kept loose by laxatives, as castor oil, confection of senna, &c. ; great ease will be afforded by emollient enemata. The diet must be very moderate in quantity, and unstimulating in quality. The anus must be dilated by the introduction of bougies, and must be effected with much gentleness, for more pain will be experienced in this disease than in stricture of the rectum, in consequence of the greater sensibility of the inte-

gument than of the mucous membrane. When the instrument is used the patient should rest on a couch or bed, with his knees drawn up. The better time for passing the bougie will be shortly before the usual period of the bowels acting. Ablutions with soap and water, twice or thrice a-day, will add to the patient's comfort, and lessen the local irritation. If much nervous excitement be occasioned, and there be much pain, anodynes may be required, and may be administered by the mouth, or as suppositories, or enemata.

Some years since I saw, in conjunction with Mr. Morton, a child, about two years old, with congenital contraction of the anus, which would not admit a larger instrument than a number eleven bougie; the belly was tumid, and the general health impaired; dilatation was had recourse to, in a short time the bowels could be entirely relieved, and, with the aid of tonics, the patient progressed favourably.

W. W., æt. thirty-nine, a clerk in a merchant's office, had suffered for some years from internal and external piles; two years previously to my seeing him he had had the external ones removed; he described the wounds caused by the operation as being large, and that they were some time healing; after this he felt free from all his previous discomfort, but, at length, found a gradually increasing difficulty in passing his motions, and great straining was necessary to

effect their expulsion; he also observed the stools were small and contracted when they were solid; to lessen the pain he suffered he had frequent recourse to castor oil.

On examination the anus presented several cicatrices, the radiating folds of the integument were effaced, and the anus would only admit the tip of the little finger. The general health had suffered by the pain and the anxiety the affection occasioned; the plan of treatment was that which has been described, and a rapid recovery ensued.

J. T., a tailor, had suffered from piles and had been operated on; he now complained of difficulty in defecating, attended with severe smarting, followed by aching; the history and the condition of the patient were similar to those described in the preceding case, except that there was fissure in conjunction with the contracted state of the anus. Bougies were used smeared with an ointment of grey powder and spermaceti, and extract of belladonna, applied on lint, to relieve the painful contraction of the sphincter. The fissure healed without the necessity of making any incision.

I have not met with a case of contraction of the anus as described by Mr. White. Dr. Bushe* relates the following case, which he considers syphilitic.

An officer, who had been engaged in many a well contested field, and had endured great fatigue, and many

* "Treatise on the Malformations, Injuries, and Diseases of the Rectum and Anus," by George Bushe, M.D., New York, 1837, pp. 260, 261.

privations while campaigning, became the subject, in succession, of hepatitis, dysentery, ague, and dyspepsia. By proper medical treatment, and great attention on his own part, he improved much, but never regained his former state of health. In 1824 he contracted an ulcer on his penis, which healed with great difficulty, and was soon followed by secondary symptoms, under which his health rapidly deteriorated, and when I saw him, in the summer of 1826, he was greatly emaciated, with nodes on his bones, an eruption on his skin, chronic iritis, and induration, thickening and partial ulceration of the marginal integument and mucous membrane of the anus. He had suffered most annoyance from this last affection, having much purulent discharge, constant tenesmus, and excruciating torture both at and after stool. Leeches, fomentations, saturnine and opiate poultices, the introduction of meshes of lint besmeared with lard and extract of belladonna, as well as emollient and anodyne lavements, were tried in vain, at the same time that sarsaparilla and oxymuriate of mercury were administered.

This poor fellow sunk in a few months, and on dissection, about an inch and a quarter of the extremity of the gut was found diseased.

Within the last three years, I have seen two cases of contraction of the anus by infiltration of lymph, both had been preceded by dysenteric symptoms; and after their subsidence mild mercurials and iodide of potassium were prescribed, and dilatation had recourse to with the happiest effect.

CHAPTER V.

FISSURE OF THE ANUS AND LOWER PART OF THE RECTUM.

This disease, of frequent occurrence, and giving rise to more uneasiness and suffering, in proportion to the pathological condition of the structures involved, than perhaps any other disease to which the human frame is liable, has met with very little consideration from the majority of surgical writers, or been even mentioned in most systematic works on surgery; although the distinguished surgeon, M. Boyer, in the tenth volume of his "Traité des Maladies Chirurgicales," published in 1825, well described this malady, in this country it has not received that attention which the subject demands, and there is strong reason to believe the diagnosis and treatment are not so familiarly known as might be desired, a fact to be regretted the more, as little difficulty presents itself in either.

Fissure of the anus, usually occurs during the

middle period of life. Dr. Bushe* has not observed this affection before the age of eighteen, or later than sixty-nine years of age. Professor Miller† says, "they"—fissures—"have been observed in children at the breast;" but this must be of rare occurrence, the predisposing and exciting causes seldom existing till after puberty. One of the latest writers on diseases of the rectum, objects to the term fissure, and speaks of the affection as "irritable ulcer of the rectum;" although, in many instances, when the surgeon is first consulted, it may present the form of an oblong ulcer, yet I have no hesitation in saying the primary condition was essentially a fissure or crack of the mucous membrane.

In the majority of cases, the lesion is confined to the mucous membrane only, but occasionally extends to the submucous cellular tissue, or even to the muscular fibres of the sphincter; the inferior extremity of the fissure is usually immediately within the margin of the external sphincter, or implicates the skin at the margin to a slight extent, but is not unfrequently situated higher up. A fissure may exist on either side, or perhaps on both sides of the bowel; it less frequently occurs posteriorly, and still more

* Op. cit. page 100.

† "Practice of Surgery," by James Miller, F.R.S.E., Edinburgh, 1852, p. 380.

rarely anteriorly. If an examination is made early in the disease, the fissure has the same appearance as the crack that occurs in the lip during the decline of catarrh, but it soon degenerates into an ulcer, in the same manner as wounds of other parts that do not heal readily, and will be most commonly observed to be about an eighth of an inch in width, and from a quarter to an inch in length; at first the edges are sharp, and the surface florid, but after the disease has existed for some time, the former become indurated and raised, and the surface pulpy and ash coloured; the surrounding membrane may be inflamed, and its surface rendered friable, or the ulcerative process may extend, and an ulcer be formed, varying in size from a four-penny piece to that of a shilling.

In the commencement of this disease the symptoms are not generally severe, and are only experienced while at stool, when, at a certain point, there will be smarting of greater or less severity, or perhaps only a slight stinging or pricking sensation may be felt; if the disease is allowed to progress, the smarting during the act of defecation will be greatly increased, or the pain may be burning or lancinating, followed by excruciating aching and throbbing, with violent spasmodic contraction of the sphincter muscle, continuing from half an hour to several hours.

The stools, when solid, will be streaked with purulent discharge and slightly with blood, and when more soft will be figured and of small size, leading the inexperienced to imagine stricture of the rectum to be the cause of the sufferings endured; charlatans also have availed themselves of the latter symptoms to delude their victims into the belief of the existence of a more serious malady. The disease being fully established, the pain will be induced by sneezing, coughing, forced respiration, and by micturation, and so violent does the agony become, that individuals thus afflicted, even avoid taking the proper quantity of nourishment, in order that the fæcal mass may be small; they also in their dread postpone the calls of nature, but only with the effect of aggravating their torments. Sitting is painful, and in order to protect the anus from pressure, the patient rests on one hip or on a corner of a chair, or he may be compelled to remain recumbent. Partaking of highly seasoned dishes and fermented liquors will always involve the penalty of increase of pain; in females, the pain will also be increased during the menstrual period. From nervous irritation, pains are often felt in other parts, simulating sciatica or rheumatism; the urinary organs are also liable to be sympathetically deranged, and thus the

attention may be diverted from the real seat of disease.

It is stated women are more subject to this affection than men. I have observed it frequently in both sexes; but cannot determine that the one is more obnoxious to it than the other ; want of proper exercise certainly predisposes to it ; women are sedentary both from habit and the usages of society ; in them also, constipation, one of the exciting causes, is frequent, partly arising from their habitually neglecting to obey the calls of nature, which for a time they do with less inconvenience, in consequence of the greater capacity of the pelvic cavity than in the male, but thereby laying the foundation of protracted or permanent ailment ; men are sedentary from the various occupations in the affairs of life ; and among the working classes many are compelled by the nature of their business to maintain the sitting posture for a number of hours consecutively, and in these all diseases of the rectum and anus are extremely prevalent.

The predisposing causes are constriction of the anal orifice, either from spasmodic action of the sphincter, occurring from intestinal irritation produced by the ingesta, or a vitiated and acrid condition of the secretions, or from the cicatrization of

wounds after surgical operations, accidental or specific ulcers, or injuries to the part. Hæmorrhoids are frequently the predisposing cause and complication of this affection; they narrow the outlet, and by the repeated attacks of inflammation to which they are subject, the surrounding tissue loses its elasticity, and is rendered friable and easily torn or broken. The exciting causes are constipation, induration of the fæcal matter, and the violent action of the expulsive muscles requisite for its evacuation.

The examination necessary for ascertaining the nature and extent of the disease is almost always attended with much pain, and for this reason it will be often advisable to administer chloroform previously; as before stated, the fibres of the superficial sphincter are strongly and spasmodically contracted, and the fundament, instead of presenting a hollow cone, has rather the appearance of a flat surface with a minute perforation in the centre marking the anal orifice. If by the forcible separation of the buttocks, the fissure cannot be brought into view, the speculum ani must be used, or by the careful introduction of the finger it may be detected as an elevated ridge, palpable, in proportion to the existing induration, to the touch. If the fissure be situated deeply in the columnar folds of the bowel, and the examination be made at an early period of the disease,

the surgeon may not be able readily to detect it by his finger, but he will become acquainted with its locality by the patient complaining of pain at some one particular point. Should the fissure have taken on the ulcerative process, the limit to which it has extended may also be detected by the finger, but it will be necessary to make an examination with the speculum ani, that the exact condition as well as the dimensions may be ascertained previously to determining the plan of treatment.

My experience fully justifies me in stating that in the majority of recent cases it is not necessary to have recourse to an operation, although some of high authority in the profession assert that incision is the only effectual remedy, and that all sorts of applications, soothing and irritating, are unavailing.

If the fissure exists at the verge of the anus, and is of recent origin, the patient must be directed to have recourse to ablution with soap and water, night and morning; after evacuating the contents of the bowels, half a pint of cold or tepid water should be injected; and a small piece of lint, saturated with the following lotion, or one of similar properties, must be kept applied to the part.

℞ Plumbi Acetatis, gr. x.
Liquoris Opii Sedativi, ♏xx.
Aquæ Sambuci, ℥iv.

Misce.

Where there is much spasm of the sphincter, the extract of belladonna, in the proportion of a drachm of the extract to an ounce of spermaceti ointment, or ointment of acetate of lead, is commonly successful in relieving this distressing symptom. Belladonna has been employed in combating pain and spasm in diseases of the rectum by many eminent surgeons for a number of years. Dr. Copland, in his valuable work, the "Dictionary of Practical Medicine," appends a note, stating that Dr. Graham, of Stirling, was the first to employ this medicine in diseases of the rectum and anus; on referring to the first volume of the "Edinburgh Medical Commentaries" (A.D. 1774), p. 419, I find he applied it to the perineum, for a solid tumour situate in the recto-vaginal septum, and states he has observed great advantage to accrue in using it in diseases of the rectum and anus. Sir Benjamin Brodie formerly prescribed it in the form of a suppository, but from the serious symptoms sometimes produced by its influence on the brain, he is not now in the habit of frequently employing it.

At the same time that local treatment is being practised, it will be necessary to attend to the state of the secretions and excretions, and to correct any error in the patient's habits and manner of living.

If after a fair trial of the simple means that have been recommended, the fissure does not heal, but

on the contrary, the edges become indurated, and the surface pulpy and indolent, the free application of the nitrate of silver, at intervals of a few days, for two or three times, will generally induce a healthy reparative action in the part. The use of the belladonna ointment and enemata after stool must be continued.

But cases will occur in which both these plans fail, and it will be necessary to have recourse to a modification of the operation recommended by M. Boyer, namely, incision through the ulcer; but it need not be carried through the sphincter, as he advised, though since his time, and even at present, the greater number of surgeons divide the parts to the extent he recommended. The operation may be performed in two ways, either by cutting from within outwards, or from without inwards. In either mode the patient must rest on his side, with his knees drawn up, and the buttocks projecting over the edge of a sofa or bed, or he may lean over a table or back of a chair. For the purpose of cutting from within outwards—the plan hitherto generally adopted—a straight probe-pointed knife, of the shape and size of the figure in the opposite page, will be most useful; it is made thicker at the back than an ordinary bistoury, by which a ridge or button on the end is rendered unnecessary. The forefinger, previously oiled,

being introduced into the rectum, the knife must be passed flat upon it till the point reaches the upper margin of the fissure or ulcer, when its edge must be turned, and an incision made through the mucous membrane, without extending it through the other structures. The other mode of making the incision is that advocated by Mr. Syme, and is performed by transfixing the ulcer beneath its base with a small, sharp-pointed curved bistoury, and cutting inwards through its centre ; the opposite side of the bowel must be protected by the introduction of the finger, as previously directed. Having on several occasions wounded myself, I find that in dividing the ulcer inwards from without the better plan is to introduce the speculum, and to cut into the open side. In operating in this affection, as well as in many others, the surgeon will experience great advantage if he is able to use the knife with either hand.

When the disease is situated in the anterior or posterior portions of the rectum, no incision should be extended beyond the mucous membrane in either direction, for the reason that wounds towards the

coccyx split and separate the fibres of the external sphincter only, and are difficult to heal, while anatomical considerations will deter us from using the knife anteriorly; in the male, from the bulb of the urethra being in close proximity, and in the female the shortness of the perineum, and the knowledge that division of the anterior fibres of the sphincter in them is so frequently followed by incontinence of fæces.

The following cases illustrate the several phases of this affection.

Fissure of the anus from constipation.

G. C., æt. thirty-one, a saddler, an out-patient under my care at University College Hospital, 1845. From the nature of his business he sat the whole day, and felt too tired on leaving work to take any exercise; he suffered from dyspepsia and constipation, the bowels not acting oftener than every second or third day; he was frequently attacked with giddiness and singing in the head; his tongue was coated and large; defecation was always attended with violent straining. Eight days previously to his applying at the hospital, while at stool, and making violent expulsive efforts, he felt something give way, and felt a smarting as the fæces passed; he also observed some blood; afterwards, each time the bowels were moved, he experienced pain and aching, the latter being very severe. On examination of the anus a slight fissure was observed, florid, and very painful when touched. Ordered to apply

a poultice at bed-time, and to take an ounce and a half of castor oil in the morning.

The next day the bowels were freely moved, attended with pain; the fissure was less inflamed; to repeat the oil, in less quantity, every morning, and to keep a small piece of lint smeared with the following ointment, closely applied within the margin of the anus.

℞ Unguenti Zinci ʒj
Extracti Belladonnæ ʒj
Ft. Unguentum.

By continuing this plan and using ablutions night and morning, in ten days he was quite well.

Fissure, intense suffering for four months cured by incision.

Mrs. K——, delicate, the mother of several children, had suffered from external hæmorrhoids during her pregnancies, and had always had great difficulty in keeping the bowels open. Soon after her last confinement she experienced smarting at the anus when at the closet, followed in a short time by intense agony; various purgative medicines had been prescribed but without affording the slightest relief. Occasionally her linen would be slightly stained with blood and pus, particularly after passing a hard stool. When I saw her—Nov. 1845—she had for some weeks been unable to leave the sofa as the pain came on if she walked about or even stood for a short time, sneezing, or any slight exertion also produced it; her health was very much impaired and she was in a state of great nervousness and despondency.

Making an examination, a small oval ulcer was perceived extending half an inch upwards from the anal margin rather posteriorly on the left side; the sphincter was thrown into violent contraction by the examination: the colon could be felt through the abdominal parietes distended with fæces. To free the bowels of accumulated fæces, enemata were injected by O'Beirne's tube, and moderate doses of castor oil were prescribed.

My friend, Mr. Morton, saw this patient with me, and we agreed that an incision should be made through the ulcer, which I performed by passing a probe-pointed knife on the forefinger introduced into the bowel; a few meshes of lint spread with the following ointment were inserted into the wound:—

℞ Unguenti Cetacei ʒvij.
Extracti Belladonnæ ʒj.
M. ft. Unguentum.

The dressings were continued, the bowels kept easy and the local affection was speedily cured. She afterwards took a combination of tonics and aperients, by which a regular state of the bowels was induced, and her health became perfectly restored.

Fissure of the anus cured by local applications.

Mr.——, æt. thirty-four, of nervous temperament, has suffered for some years from indigestion and irregularity of the bowels, being sometimes costive and at other times affected with diarrhœa. Has consulted several medical men, but never pursued any plan of treatment suggested. He applied to me early in 1851, suffering from indigestion

attended with pain at the epigastrium, flatulence, excessive nervousness, and inability to rest at night. On microscopic examination of the urine it was found to contain numerous crystals of oxalate of lime; he took mild aperients and bitter infusions with nitric and nitro-hydrochloric acids. He persevered in the remedies, and his health greatly improved. In the beginning of June of the same year he was slightly troubled with an external pile; under ordinary treatment all inconvenience subsided in a few days, a small pendulous flap of skin on the anterior margin of the anus remaining. On the 24th of the same month I was sent for in great haste, and found him suffering intense pain at the anus extending up the hollow of the sacrum; pulse quick and irritable, tongue slightly furred, skin somewhat hotter and drier than natural, countenance anxious; he had experienced slight pain for two or three days, and was in a state of great alarm about himself, imagining he had cancer of the rectum commencing, having a short time previously lost a sister by that disease. Examination revealed a fissure of the posterior part of the anus about an eighth of an inch broad, and half an inch in length. An enema of four ounces of decoction of barley and sixty minims of laudanum was administered at once, with the effect of relieving the pain: three grains of grey powder, and five grains of Dover's powder were taken at bed-time, and an aperient draught in the morning The following day, the bowels acted several times, the smarting and aching were less; the latter was relieved by an enema containing thirty minims of the tincture of opium.

A small strip of lint, impregnated with the following

lotion, was applied within the margin of the anus and renewed three times a day:—

℞ Zinci Sulphatis gr. vj.
Tincturi Opii ʒss.
Aquæ Sambuci ʒiij.
M. ft. Lotio.

The bowels were kept open by laxatives, and he took a mild tonic with alkalies. In nine days he had completely recovered.

Fissure and hæmorrhoids inducing the idea of the existence of stricture of the rectum.

Mrs. M——, æt. thirty-seven, married, the mother of four children, has suffered from hæmorrhoids for some years, particulurly during pregnancy; she consulted me in consequence of fearing she had stricture of the rectum. She had for some time previously experienced considerable pain at the time of defecation, which she described as of a cutting character resolving itself into severe aching, frequently so agonizing as to compel her to go to bed. She tried the local application of cold and hot water, experiencing slight relief from the latter. The symptoms which added greatly to her alarm, and which she had been told indicated stricture of the rectum, was a reduction in size, and contortion of the evacuations when they were at all solid. On making an examination I found two external piles, and the buttocks being divaricated, a fissure was also perceived passing upwards between the piles; the sphincter ani was strongly contracted. The bowels having been freely acted on by

castor oil and an enema, the piles were removed and the fissure touched with nitrate of silver; the operation was performed while she was under the influence of chloroform. After the third day the fissure was dressed with the following:—spermaceti ointment one ounce, acetate of lead six grains, extract of belladonna a drachm; the bowels were kept easy by taking a teaspoonful of the following electuary every night.

℞ Confectionis Sennæ
Potassæ Bitartratis
Extracti Taraxaci, ana partes equales.
M.

When the spasmodic action of the sphincter had subsided the ointment was discontinued, and four ounces of water containing eight grains of sulphate of zinc and a drachm of tincture of lavender, were injected into the bowel night and morning. She recovered in less than a month, and all symptoms of stricture of the rectum entirely disappeared.

Fissure of the posterior part of the rectum, and external pile.

Mrs. H., æt. twenty-nine, married, a patient at the Blenheim Dispensary, in the autumn of 1851, suffering from ulceration of the labia, fissures of the tongue, and general ailment; in the early part of February, 1852, was prematurely confined of a dead child. On the 2nd of March she again placed herself under my care, complaining of smarting at the anus on defecation, followed by extreme aching, which continued for one or two hours. Examination re-

vealed an external pile, the sphincter was strongly contracted, and within the margin of the anus, at the posterior part, a fissure existed. The pile was excised, and an ointment containing opium directed to be applied to the fissure; a laxative confection was also prescribed. The confection not acting on the bowels sufficiently, she took, on alternate nights, for a few times, five grains of blue pill and one drop of eroton oil, which unloaded the bowels thoroughly. She then resumed the electuary, and injected into the bowel twice daily six ounces of infusion of linseed. Before the end of the month she had quite recovered.

Fissure leading to the formation of an ulcer; sympathetic affection of the urinary organs.

In 1851 I was consulted by Mr. H., æt. forty-five. He had suffered for about eight weeks previously severe pain at the anus, extending up the sacrum to the loins, each time his bowels were moved; it first commenced after a very costive motion. He was much troubled by a frequent desire to micturate; and had noticed his linen slightly stained with blood and matter. Leading a sedentary life, and being of costive habit, he had for several years taken large quantities of Morrison's pills.

On examination, finding the sphincter ani strongly contracted, and taking into consideration the other symptoms, I suspected the existence of an ulcer, the result of fissure. An attempt to introduce the speculum inducing intolerable pain, chloroform was administered, and the instrument then used; an ulcer was exposed on the left side, of oval form and nearly an inch in its vertical diameter; the edges

were sharp and indurated, and the surface an ash colour. Mercury and chalk and Dover's powder were prescribed to be taken at bed-time, and a teaspoonful of confection of senna and sulphur in the morning, to be followed by an emollient enema. He was directed to observe the recumbent position. From the appearance of the ulcer I deemed incision necessary, but it was objected to and a wish expressed that other means should first be tried; nitrate of silver was applied on three separate occasions, and other applications were had recourse to during a period of six weeks, but without advantage. I then insisted on the necessity of the operation, to which the patient gave his consent. Having administered chloroform, I introduced into the rectum the forefinger of the right hand, and passed upon it a probe-pointed straight bistoury, and made an incision through the ulcer, dividing the mucous membrane, submucous cellular tissue, and possibly a few muscular fibres. From the time of the operation the ulcer rapidly improved, and in less than three weeks he was restored to health and comfort.

Fissure degenerating into an ulcer; sympathetic affection of the urinary organs; incision.

Mr. S., æt. thirty-nine, a gentleman residing in the country, had suffered for some time pain in the rectum, and frequent desire to micturate. His usual medical attendant, considering the symptoms depended on irritation of the urinary organs, prescribed appropriate medicines to allay that condition, and catheters were also introduced into the urethra, but without benefit. On his

arrival in town he applied to me. In stating his case he complained of great pain at the anus during the act of defecation, increasing to intense agony, and continuing for about two hours afterwards. The bowels were constipated, and from the pain he suffered he put off the calls of nature as much as possible; his bladder was very irritable, having frequent desire to pass his urine. By digital examination of the bowel, an ulcer, with indurated edges, was felt on the left side. Having ordered means by which the bowels were fully relieved, the following day I incised the ulcer, by transfixing its base with a small curved knife, and cutting into the open side of a speculum, previously passed into the bowel. The ulcer presented a foul, indolent surface, with defined raised margin. The after treatment was the same as has been advised, and a rapid recovery ensued.

CHAPTER VI.

NEURALGIA OF THE ANUS AND EXTREMITY OF THE RECTUM.

That the rectum and anus are occasionally affected by a morbid exaltation of sensibility, independently of inflammatory action in a recognizable form, or the existence of any appreciable lesion to account for the pain experienced, cannot be doubted; nor is there any reason why these parts should be exempt from this affection, when we find it attacking not only the face, limbs, and other parts of the body, supplied by the cerebro-spinal nerves; modern investigations into the pathology of the nervous system supply abundant evidence why organs supplied by the ganglionic nerves should be affected by neuralgia, as well as other parts of the animal economy.

This disease, in its substantive form, will be most frequently met with in anæmic individuals, in whom the nervous sensibility is generally excessive and often deranged. Females, whose systems have been depressed by menorrhagia, or frequent child-bearing,

particularly if the labours have been attended with violent floodings, are liable to become the subjects of this disease, as well as other forms of neuralgia. Those individuals who have been debilitated by accidental losses of blood, by diseases of a depressing character, or by excesses and irregular habits, are also prone to the affection.

The pain varies much in character and in intensity in different cases, and will be observed to do so sometimes even in the same patient; it will be described as aching, lancinating, throbbing, burning, &c.; it may be preceded or accompanied by neuralgic pains in other parts, or be the only one affected. The pain in some cases is constant, but is more often remittent, in other cases it will be observed to be periodic, returning at certain intervals and continuing for a definite time; atmospheric changes also exert a powerful influence on the disease.

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Neuralgia of the rectum more often arises from irritation in some portion of the alimentary canal than from other causes; the stomach, small intestines, or colon, being the primary source of the affection; or it is induced or accompanied by irritation of the uterus and vagina in the female, of the testicle in the male, or of the urinary organs in either sex; exposure to cold and damp, sitting on cold and wet stones, will occasion it; it is also induced by the

influence of malaria. In the autumn of 1852 I had a man under my care who was said to have piles, but upon inquiring into the history of the case no doubt remained in my mind that he was suffering from neuralgia induced by malaria; he complained of great pain at the fundament, occurring daily, and continuing for some hours; it was not induced at stool, neither was it aggravated by the evacuation of the contents of the intestine; he had no bleeding from the anus, nor was there any tumour or lesion of any kind discoverable. He had been engaged during the harvest time in Essex, and exposed to the influence of night air. The skin, during the time the pain was present, was slightly hotter than natural, and the pulse a few beats quicker; the tongue was coated, and the bowels were tolerably regular. To improve his general health purgatives and tonics were prescribed, and continued for a few days; to mitigate the pain he was directed to apply an ointment of one part of the extract of belladonna and seven parts of lard, but it failed to have the desired effect. His bowels having been freely acted on, and his tongue becoming cleaner, quinine was administered, under the use of which the pain declined, and he very shortly entirely recovered.

The treatment of neuralgia in any form is often difficult, from the obscurity of the cause giving rise

to it, and this, if possible, must be ascertained. If it can be traced to irritation, resulting from fæcal accumulations or a depraved condition of the secretions and excretions of the alimentary canal, such purgatives as are deemed most appropriate to the case must be prescribed, conjoined with a strict observance of regimen, both in regard to quantity and quality. In anæmic patients it will be advisable to prescribe the various preparations of iron; the ammonio-citrate of iron in infusion of calumba will be tolerated when other salts of this metal disagree; should irritability of the stomach exist, hydrocyanic acid may be added with advantage. But some of the other preparations will at times be more desirable, such as the carbonate, the saccharated carbonate of iron of the Edinburgh Pharmacopœia; the sulphate of iron in combination with the sulphate of quinine, to which, if necessary, a purgative effect may be given, by the addition of the sulphate of magnesia; these and other remedies will be required, according to the peculiarity of the constitution and complications of the affection under consideration. I have found small doses of extract of belladonna of marked benefit in neuralgia of the head, the face, and of the arm, the same resulting in one case of neuralgia of the rectum, in which it was prescribed. Anodyne enemata may be used at the same time that we

are administering medicines by the mouth ; and lotions containing aconite, belladonna, opium, and other narcotics and sedatives, applied locally. Steaming the part with infusions of narcotic plants will at times afford relief, when other means have failed. In some persons pressure has mitigated the pain, whilst the slightest touch cannot be tolerated by others.

The following curious case of this disease is related by Mr. Mayo :*

I attended a patient with Mr. Stephenson, of Edgeware Road, who suffered from pain in the rectum. Something less than two years before this he had a syphilitic ulcer upon the penis, for which he had taken an unusually large quantity of mercury, owing to the difficulty of producing sensible mercurial action in the system. The ulcer, however, healed; but while he was recovering, and his system was yet charged with mercury, he began to experience aching pains in the incisor teeth, and in the rectum. The sense of aching in the teeth and in the rectum was not constant, but would come on frequently during the day, without any assignable cause. It had lasted a year and a half, during which he had remained free from symptoms of lues. This patient, who was otherwise in good health, suffered his mind to be greatly distressed by the continuance of the neuralgia. He was anxious to try every plan which held out the least promise of benefiting

* "Observations on Injuries and Diseases of the Rectum," by Herbert Mayo, London, 1833, pp. 56, 57.

him. But of all the remedies which he tried he appeared to experience relief from one only, which was a course of sarsaparilla.

Dr. Bushe* relates three cases of what he considered neuralgia, but, from the history of the first two and the result of the treatment adopted in the second, I am induced to think the symptoms arose from the existence of some lesion, which was most probably superficial ulceration or fissure, perhaps not to a greater extent than the removal of the epithelium, and which though it could not be discovered by digital examination, might be inferred from the pain caused by pressure on the particular spot. In the third case the patient had suffered from tic douloureux in the face, for some time previously to the rectum being affected. She experienced relief by firm pressure, which she effected by folding a napkin into as small a compass as possible, placing it between her buttocks, and sitting on a wooden chair.

* Op. cit., pp. 113—116.

CHAPTER VII.

INFLAMMATION OF THE RECTUM.

Inflammation of the rectum is either sthenic or asthenic, acute, sub-acute, or chronic ; it may be the primary disease, or secondary, resulting from disease existing in the neighbouring parts, and will be either simple or specific in its nature.

The predisposing causes of proctitis are a sanguine and irritable temperament, sedentary occupation, particularly if conjoined with the indulgences of the table, a full habit of body, hæmorrhoidal affections, venereal excesses, and voluntary and involuntary pollutions ; disease of the bladder, prostate gland, and urethra in the male, and of the womb and vagina in the female. The exciting causes act either through the medium of the intestinal canal, or from without.

Of those which act from within, the most frequent and important are the ingesta—dietetic or medicinal —substances swallowed with the food, either intentionally or accidentally, which lodge and irritate the

intestine or penetrate its coats, such as fish bones, spiculæ of other bones, the stones and seeds of fruits, &c.; the prolonged and improper use of aloetic and resinous purgatives, frequent and large doses of calomel and other mercurial preparations, the long-continued or excessive use of arsenic, emenagogues similarly prescribed; the presence of entozoa, accumulation of fæces, morbid secretions and excretions, concretions formed in the bowels, and hæmorrhoidal affections. To these Bushe* adds rheumatism and gout, and relates two cases that came under his observation. The external agents in inducing inflammation of the rectum are accidental injuries, surgical operations, and wounds involving the anus and rectum; foreign bodies introduced from without, and the operation for their extraction; acrid enemata and suppositories, injuries inflicted by clumsy attempts to administer enemata; the contact of syphilitic and gonorrhœal virus and other infecting agents; the exhalation from foul privies—where the accumulation of night-soil is great—rising against the anus during the act of defecation; from this cause soldiers, when encamped, are often affected with inflammation of the rectum, particularly if dysenteric diseases prevail, with which proctitis may be confounded; the abstraction of animal heat by sitting on the wet and

* Op. cit., p. 87.

cold ground or stones, or on a wet seat while driving in an open vehicle; the latter cause, besides inflammation, often inducing abscess and fistula in ano in coachmen and others; protracted labours, and injury from the use of obstetric instruments, rendered necessary by the emergency of the case, or by the improper and unskilful application of them; and other contingencies of the puerperal state.

The symptoms will be modified by various circumstances, depending upon the constitutional powers of the patient and the nature of the exciting cause. The acute sthenic proctitis is manifested by a feeling of fulness, weight, throbbing, and heat at the anus, extending up the sacrum; frequent desire to go to stool, attended with great straining, but by scanty evacuations, and with mucous, membranous, or muco-sanguineous discharge, the pain and suffering at the time being greatly increased. The sphincter ani will be contracted, the mucous membrane of the bowel will be red and highly sensitive, its temperature exalted, which will be evident to the finger if introduced into the bowel, but great torture to the patient will thereby be occasioned.

The sympathetic constitutional disturbance varies with the attack and nature of the cause. If it arises from cold, rigors and chills may precede the local symptoms; the concomitants of pyrexia will be

present, namely, loss of appetite, heat and dryness of skin, and thirst; the tongue white, loaded, and enlarged, with the impressions of the teeth indented into its margins; the functions of secretion and excretion are impaired and disordered, the urine is scanty and high coloured, and is passed frequently and with difficulty if the urinary organs are implicated by the extension of inflammation to them; should the disease have been neglected and large fæcal accumulations have taken place, vomiting may occur, but this is not often the case.

The complications of inflammation of the rectum are often of a serious character, and require careful consideration and treatment. The urinary organs in the male are frequently affected, the prostate gland, the neck of the bladder and urethra becoming involved in the inflammatory action, causing dysuria, strangury, or even retention of urine, the latter depending upon spasm of the muscular structure acting on the urethra. In the female the inflammation is more prone to extend to neighbouring parts, the vagina, the os and cervix uteri becoming implicated, accompanied by distressing bearing-down pains. Occasionally cases will be met with where the inflammation has extended to the peritoneum, rendering the patient's sufferings much greater, and seriously increasing the danger; to the other symp-

toms we shall then have superadded abdominal tenderness, more or less extensive and severe, in proportion to the activity of the inflammatory action; tympanitis will also be present.

Like inflammation attacking other parts, proctitis may terminate in resolution or subside by hæmorrhage taking place from the mucous surface of the intestine; relief of all the symptoms immediately following. Should the patient have previously suffered from internal hæmorrhoids, the same termination may occur by the accession of the hæmorrhoidal flux. But if neither of these favourable results be arrived at, the inflammation may lead to ulceration of the inner coats of the bowel, an ulcer of greater or less extent being formed, or the ulcerative process may attack the follicles, and produce a number of distinct ulcers. Suppuration, external to the intestine, is liable to ensue from extension of the inflammation or by perforation of an ulcer or ulcers, causing abscess between the rectum and vagina in the female, or between the bowel and neck of the bladder in the male, or in either sex in the loose cellular tissue around the bowel, and, as a result, the formation of fistula in ano. The hæmorrhoidal veins and peritoneum may be involved in the inflammation, and in either case the complication is of a very serious character, and is fraught with much peril to the

patient. Lastly, acute proctitis may subside into the chronic form, and induce various changes in the tissues of the rectum and colon, and parts adjoining. Such as ulceration, simple or fistulous, thickening, induration, and contraction of the coats of the intestine, stricture, spasmodic stricture, spasmodic contraction of the sphincter ani, fissure, &c.

Chronic proctitis may occur primarily as well as be the result of the acute or subacute form of the disease.

Asthenic acute proctitis occurs chiefly in cachetic and exhausted constitutions, or may be caused by the poisonous and depressing properties of the exciting cause, as when occurring from exposure to the emanations of foul privies.

In the treatment, the first thing to be considered is the nature of the predisposing and exciting causes and the activity and character of the inflammatory action. If the inflammation has been produced by the lodgment of foreign bodies, by the accumulation and induration of fæcal excretions, or alvine concretions, they must be dislodged by mechanical means, all possible gentleness being observed in the operation. If the presence of ascarides is the cause, they must be expelled from their habitation by the administration of vermifuge medicines, and the use of oleaginous and terebinthinate enemata. Having attained

these objects, the bowels should be kept free from irritation by the use of emollient enemata, and attention to the quality of the ingesta. In the sthenic form of the disease, and in plethoric individuals, it will be necessary to take blood locally by cupping over the sacrum and on the perineum, or by the application of leeches around the anus; the bleeding being promoted by the patient sitting over warm water after the leeches have fallen off, or by the use of hot linseed-meal poultices. The warm-bath, semicupium, or hip-bath, will afterwards be serviceable.

The state of the excretions and secretions must be attended to. Hydrargyrum cum cretâ and the pulvis ipecacuanhæ composita will be beneficial; if pain and tenesmus be complained of after depletion, the compound ipecacuanha powder or simple ipecacuanha powder with henbane, extract of hop, or extract of poppy, may be administered; great relief will also be experienced by the administration of enemata, of four or six ounces of infusion of linseed, containing from thirty to sixty minims of laudanum. After the irritability of the rectum by these means has been somewhat allayed, the bowels should be moved by fresh castor oil or olive oil, or by the confection of senna and sulphur, with or without the addition of copaiba, according to circumstances. Diluents should be taken freely, and all stimulating ingesta avoided.

The subacute and chronic forms will require the same treatment slightly modified. The abstraction of blood will be less necessary than in the acute form, but the warm bath or hip-bath and soothing and emollient enemata will be equally beneficial and necessary in the former states of the affection as in the latter. If excoriation, heat, and irritation, are experienced, great relief will be afforded by the use of a cooling and anodyne lotion, such as a solution of the diacetate of lead, with acetic acid and wine of opium, pledgets of lint, saturated with it, being kept constantly applied to the parts.

The asthenic form of inflammation of the rectum rarely admits of depletion, either general or topical. It has a greater tendency than the other varieties of inflammation to spread up the intestinal canal, therefore our endeavours must be directed to prevent and limit the extension of the diseased action and to support the vital powers of the constitution. The first object is to be obtained by the use of the warm-bath or hip-bath, followed by stimulating embrocations applied over the sacrum and to the hypogastrium; warm terebinthinate epithems, applied on flannel, will be of great service; demulcent and anodyne enemata should be employed early in the treatment, and are always beneficial. The constitutional treatment will consist of the administration of

small doses of quinine with camphor, ipecacuanha, and the sedative extracts; castor oil either alone or with turpentine should be prescribed to move the bowels, or the confection of senna with the extract of taraxacum and bitartrate of potash.

Should ulceration or sphacelation occur, the treatment recommended in Chapter VIII.* must be adopted.

In this, as in all other diseases of the rectum, great care is necessary in administering an enema not to injure the bowel with the pipe of the instrument, and there will be less probability of mischief occurring if the jet be made of elastic gum tube instead of metal or ivory.

The specific form of proctitis, arising from gonorrhœal or syphilitic infection must be treated in conformity with the principles for the diseases occurring in other parts. Enemata should not be used in these cases, lest they should favour their extension, but strict cleanliness must be enjoined; the use of cooling and anodyne lotions, and such other means as are usually employed to allay local inflammation, must be put into requisition.

The occurrence of peritonitis will be a most serious complication, and demand active and prompt measures in the treatment. In plethoric individuals

* Page 65.

blood should be taken freely from the arm, and a large number of leeches applied to the abdomen, followed by hot anodyne fomentations, or by, what is much better, a flannel wrung out of hot water, and freely sprinkled with warm turpentine ; calomel and opium must be administered more or less frequently, according to the urgency of the symptoms, and counter-irritation established on the lower extremities by stimulating pediluvia and sinapisms.

The hip-bath and anodyne enemata and a strict observance of the horizontal position will be most efficacious in relieving the bearing-down pains experienced by females suffering from proctitis.

When the urinary organs are affected, and dysuria and strangury induced, the warm hip-bath will be required, which if insufficient to afford relief, we shall be called upon to direct other measures, particularly if retention of urine should taken place; then it would be advisable to prescribe a full dose of morphine in addition to the bath; tartar emetic, in frequent and nauseating doses, will generally relax the spasmodic condition of the muscles preventing micturition ; but if these means fail, and the bladder is much distended, it must be relieved by the gentle introduction of the catheter.

CHAPTER VIII.

ULCERATION OF THE RECTUM.

It is intended in this chapter to treat of ulcers resulting from simple or specific inflammation, or occurring as a complication or effect of other diseases and lesions. Those originating in fissure have already been considered.

Perhaps the most frequent cause of simple ulceration of the mucous membrane of the rectum arises either from bruising and subsequent inflammation, or from the surface being abraded, and a slight laceration produced by the passage of indurated fæces; it occurs in persons of constipated habit, in whom the mucous membrane of the rectal pouch is often relaxed, and in the act of defecation a small portion slipping down below the upper margin of the sphincter, becomes jammed between it and the fæcal mass, producing one of the lesions mentioned, and leading to ulceration.

It occurs not unfrequently as a consequence of dysentery, either acute or chronic, and of colliquative

diarrhœa. It may be either the cause or consequence of abscess of the rectum and anus, or be the result of one of the forms of proctitis described in the previous chapter.* Ulceration is often occasioned by the entanglement and lodgment of the fæces in the mucous follicles of the rectum, in which case several ulcers will generally exist.

Ulceration of the rectum is frequently found as a complication of disease existing in other organs, rather than as a primary and simple lesion. We meet with it associated with tubercular diseases of the lungs and liver, and tubercular deposits in other parts of the body. In children it is often a complication of thrush, of disease of the mesenteric glands, and a consequence of chronic diarrhœa. Diseases of the urethra and prostate gland in the male, and of the uterus in the female, also give rise to ulceration of this bowel.

Ulcers in this region will assume different forms and phases, in like manner as when they occur in other and exposed parts of the body, being similarly influenced by the causes producing them, and the state of the constitution of the individual. They vary in size as well as number, and are either superficial or involve the whole thickness of the coats of the intestine. If produced by the lodgment of fæces in the lacunæ, they will be moderate in size, deep, and if

* Page 59.

they have existed any length of time, the edges will be indurated and prominent.

The symptoms of ulceration of the rectum are a discharge of sanious, purulent, or muco-purulent matter oozing from the anus, soiling the patient's linen, and producing great discomfort, and perhaps excoriation of the external parts; pain in the gut extending up the sacrum to the loins, or sense of weight in the bowel, aching down the inside of the thighs, smarting at stool, and, if the ulcer be situated near the verge of the anus, there will also be spasm of the sphincter, as in fissure of that part; the fæces will be besmeared with blood and pus, and the patient will be troubled with tenesmus, and irritation of the urinary organs. Mr. Colles,* speaking of the pain and discharge in this disease, says, "At times the quantity of discharge is much lessened, and then the sufferings of the patient are aggravated; but on the flowing off of a large quantity he experiences great relief;" this I presume must have been due to the acute and excessive inflammatory action, and not depending alone upon the quantity of matter secreted by the ulcer.

When the ulcer is situated just within the external sphincter, and spasm of that muscle does not exist, it may be brought into view by divarication of the

* "Dublin Journal," vol. v. p. 156.

buttocks, and pressing aside the edges of the anus with the fingers; but if it exist higher up the intestine and in the most usual position in which it is found, namely, immediately above the upper margin of the internal sphincter, the speculum must be used to dilate the anus, when we shall with ease be able to judge of the situation, form, extent, and character of the ulcer. Mr. Colles* recommends "a blunt polished gorget, with its concavity looking towards the seat of the disease, to be passed upon the finger into the rectum; then by everting the anus as much as we can, we shall obtain a full view of the ulcer by the light reflected from the gorget." By the introduction of the finger, and making a careful and gentle exploration, we may arrive at a very correct knowledge of the extent, form, and situation of the ulcer, by the pulpy feel of its surface, and by its edges being raised above the surrounding tissue; but, as the introduction of the speculum is not attended with more pain than digital examination, it is preferable and more satisfactory to have recourse to it, as we shall thereby acquire a better notion of the precise character of the sore.

Ulcers of the rectum assume every variety of form save that of the healthy ulcer, with small florid accuminated granulations rising to the level of the sur-

* Op. Cit.

rounding surface, and the process of cicatrization advancing from the margins. Ulcers in this region, in unhealthy and broken-down constitutions, are sometimes attacked with phagedæna.

Many circumstances concur to interfere with a healthy reparative process in ulceration of the rectum. The constant contusion, and stretching of the ulcerated surface by the passage of the fæces, the irritation produced by contact of the excretions, the congestion that occurs in the capillary vessels by the whole weight of the column of blood reacting upon them, from the absence of valves in the portal venous system, and the depending situation of the hæmorrhoidal veins, from which the return of blood may be still further impeded by accumulation of fæces, or the presence of pelvic tumours pressing upon them. Other impediments exist to the healing process, such as the puckering and undue and unequal pressure the ulcerated surface is subject to, if situated within and embraced by the internal sphincter ; and lastly, the impossibility of keeping dressings accurately applied to the ulcer, and making that equal and constant pressure, which proves so efficient in ulcers occurring in other parts, accompanied by retarded venous circulation.

From the liability of ulcers of the rectum to become congested while the patient is allowed to be

about, it will be necessary to confine him to the bed or sofa while under treatment; and during that time a strict regimen must be enforced, all stimulating food being prohibited, and only that allowed which will form the least amount of excrementitious matter.

In this disease we shall seldom be called upon to practise general blood-letting, but, if there be much throbbing and fulness about the part, the local abstraction of blood by cupping or leeches to the sacral region and perineum may be necessary; emollient enemata will always be beneficial. Attention must be directed to the state of the general health, which we must endeavour to restore by appropriate means, if it has been impaired by disease or irregularity of habits. Constipation must be remedied, the bowels are to be freed of fæcal accumulations by enemata, thrown up by O'Beirne's tube; the functions of the liver and pancreas are to be promoted by mild doses of mercurials, taraxacum, or nitro-hydrochloric acid, and irritability allayed by sedative and sudorific remedies.

Provided the ulceration is recent and not of great extent it may generally be made to heal by the adoption of the constitutional treatment just mentioned and topical applications. The ulcer is to be brought into view, as in making an examination, and the solid nitrate of silver applied more or less freely according to its condition, or either of the following lotions may

be used by means of a camel hair pencil or swab of charpie.

℞ Argenti Nitratis gr. xxx. ad xl.
Aquæ distillatæ ʒj.
Misce fiat solutio.

℞ Acidi Nitrici diluti ♏viij.
Aquæ distillatæ ʒj.
Misce fiat lotio.

It will be necessary, in some cases, to have recourse to these applications several times. Four or six ounces of water, with zinc, or lead, and two or three grains of extract of opium or belladonna rubbed up in it, and injected into the bowel once or twice in the twenty-four hours, will sometimes be found useful.

Under the foregoing plan of treatment the ulceration, if not extensive, will generally take on the reparative process and cicatrization rapidly follow. But it frequently happens the surgeon is not consulted till the disease has persisted some time or is extensive, attended with great pain and violent spasmodic contraction of the anus; local applications will then be of no avail, and incision must be had recourse to; it is to be performed in the same manner as described in Chapter V.,* on fissure, only that the sphincter muscle must be entirely divided. The incision is to be made through the centre of the ulcer, except when it is situated on the posterior or anterior aspect of

* Pages 38, 39.

the rectum, in which case it will be advisable to make an incision on either side of the median line for the reasons elsewhere urged; light dressings must be applied to the wound, and a rapid cure usually ensues. The principle on which this is effected I conceive to be the following: the ulcer is freed from all undue pressure, the spasm of the muscle ceases, the blood-vessels are relieved from engorgement, the fæces pass without difficulty, and medicaments may be more easily applied to the part.

Previous to the operation the bowels should be unloaded by a dose of castor oil or laxative electuary, followed by an enema of thin gruel; and after it has been performed a dose of opium should be given for the double object of tranquillizing the patient and producing temporary constipation.

Should ulceration attack many points of the intestine, and extend high up, the probability will be a fatal termination of the case in spite of the most judicious measures we can employ.

Venereal ulceration may attack the rectum by the direct application of the poison from the genitals or it may coexist with some form of secondary syphilis. In the first volume of the "Pathological Transactions"* is an account of extensive ulceration of the rectum from syphilis; the specimen, exhibited by Mr. Avery,

* Pages 67, 68.

was taken from the body of a girl who died in Charing Cross Hospital; the ulceration extended three inches up the intestine and occupied the whole internal surface to that extent.

Venereal ulcers of the rectum are seldom met with except in those of the most depraved morals; and when they occur they often take on a phagedenic action, from the constitution being worn out by vice and debauchery, death speedily terminating the sufferings of the unhappy victims; in this country this form of disease is rarely seen except in those prostitutes residing in the neighbourhood of the docks or other low localities, and who, during their brief period of existence are constantly under the influence of spirituous liquors.

Syphilitic ulceration not unfrequently leads to perforation of the recto-vaginal septum in the female, and recto-vesical walls when occurring in the male; records of such cases are more numerous in the writings of foreign authors than in those of this country.

The treatment must be varied according to circumstances. In phagedæna we must try to arrest the morbid action by the application of the concentrated nitric acid, taking care not to induce perforation of the bowel. The constitutional powers must be maintained by nutritious food, stimulants, quinine, &c.

Ulceration occurs in cases of stricture of the rectum above the constricted part, as a consequence of pressure of accumulated fæces ; the whole thickness of the intestine may be perforated, giving rise to abscess, which may open externally by the side of the anus or perforate the serous cavity of the abdomen, producing fatal peritonitis.

In the treatment of this last form of ulceration our attention must be directed to the cause, and if that cannot be remedied we shall be able to do but little to mitigate the effect.

Superficial ulceration treated with nitrate of silver.

Mrs. T——, of middle age, delicate constitution, had been subject to mucous diarrhœa. Three weeks previous to consulting me she experienced great pain at stool and afterwards, of a smarting burning character ; she had purulent discharge and complained of a sense of weight in the rectum, pain up the sacrum and in the loins, and bearing-down of the womb. By examination I discovered extensive superficial ulceration near the upper margin of the sphincter. I injected an enema of decoction of linseed, and afterwards passed the solid nitrate of silver over the ulcerated surface. I directed she should confine herself to the couch, and that her diet should consist of broths and farinaceous food, and desired her to have a hot hip-bath each night before retiring to bed. Her bowels were kept easy, and enemata of four ounces of mucilage with liquor plumbi diacetatis and

tinctura opii, were injected into the bowels twice a day. Twelve days sufficed to effect a cure.

Superficial ulceration treated with nitric acid lotion.

Mr. H. sought my advice on account of purulent discharge from the anus, great pain in defecating, continuing for some hours afterwards; he also had irritability of the bladder. He was accustomed to high living, and attributed his indisposition to having swallowed a spicula of a bone of a partridge, which injured the bowel in its passage outwards. By examination I detected a superficial ulcer, somewhat less than a shilling in size, the edges were inflamed and the surface covered with a tenacious muco-purulent matter. I applied the nitric acid lotion on the occasion, put him on spare diet, enjoined the recumbent position, and directed the administration of an enema every day. He made a rapid recovery.

Ulceration of the mucous membrane; incision of the sphincter.

Mrs. L. for several months had suffered pain in the rectum at and after defecating, accompanied by purulent discharge, which she attributed to internal piles; she took various empirical remedies recommended by friends, being unwilling to seek medical assistance; but, her sufferings increasing, she ultimately placed herself under my care. Her bowels had always been constipated, seldom acting without medicine. Some years previously she had hæmorrhoids, and had had them removed by operation. I

examined the bowel, and discovered above the sphincter an ulcer on the right side of the intestine of the size of a shilling, the edges were indurated, the surface pulpy. Being unwilling to submit to an operation, a variety of applications were used, the nitrate of silver, nitric acid, and others of a less active character; the recumbent position was adhered to, and a light diet observed; the bowels were kept easy by laxatives and emollient enemata, but the ulcer did not heal. Finding no benefit from the treatment, she consented to the operation proposed. I divided the sphincter, carrying the incision through the centre of the ulcer; an opiate was given after the operation. The wound was dressed in the usual manner, it granulated from the bottom, healed kindly, and in less than a month she had quite recovered.

Ulceration, its extension arrested by nitric acid, and division of the sphincter afterwards.

Mr. Bennett requested me to see F. M., æt. forty-one, of broken-down constitution. Somewhat less than a fortnight previously he began to experience pain in the rectum and anus; it increased in severity each day, and was excruciating when the bowels were moved; his linen was stained with pus and blood. When I saw him febrile symptoms were strongly marked, the skin being hot, his face flushed, tongue dry and brown in the centre, and the margins and point preternaturally red, the pulse feeble and quick; he was much prostrated. By the finger introduced into the bowel, at its posterior part a large ulce-

rated surface was felt, commencing a quarter of an inch from the anus; from the recent accession of the symptoms it must have extended rapidly. On dilating the anus the edges of the ulcer were perceived to be irregular, abrupt, and highly inflamed; the surface was covered with an ash-coloured slough. A large enema was at once administered, which unloaded the bowel. I then applied nitric acid to the surface and edges of the ulcer; a dose of opium was given immediately afterwards. On the following day, perceiving the ulcerative process to be arrested, I divided the sphincter on each side, cutting from within outward in the usual manner; lint was placed between the edges of the wounds, and three-fourths of a grain of morphine in solution was directed to be taken immediately, and six grains of Dover's powder and two of gray powder at bed-time; a poultice to be applied to the part, and renewed at night. The powder was repeated twice a day for a short time; he remained in bed, and his diet was restricted to broth and arrowroot. The constitutional symptoms subsided; the third day he had some castor oil, and the dressings came away, when the bowels acted; after which a lotion of nitrate of silver was used to the ulcer, and simple lint to the incisions. The plan was continued till the parts were quite healed, which occupied little more than a month.

CHAPTER IX.

HÆMORRHOIDAL AFFECTIONS.

Hæmorrhoids is a term generally applied to certain tumours occurring at the verge of the anus, or within the rectum. The term, like many others, is not the most appropriate that could be chosen, as it conveys no adequate idea of the nature of the disease; yet by use it has become familiar both to the profession and the public, and its import generally understood; piles is the popular name under which these affections are known, indeed, by many, and by the working and poorer classes especially, almost every other disease about the rectum and anus receives the same designation.

It is not surprising the ancients, from a deficiency of knowledge of anatomy and pathology, were unacquainted with the true nature of the disease, that they should have had very erroneous opinions of the structure of the tumours forming hæmorrhoids, and have entertained the notion that they performed the function of evacuating black bile and melancholic humours from the system. After the discovery of

the circulation of the blood by the illustrious Harvey, a new but equally erroneous theory was generally received, it being conceived that bleeding from external piles depleted the system generally, and that hæmorrhage from internal piles depleted the portal system only.

Montègre* gives the following classification of hæmorrhoidal complaints :—

1. Blind or dry Hæmorrhoids (Cæcæ)
2. Hæmorrhoids with discharge (Fluentes)
   - White discharge (Albæ) with catarrh of the intestines
   - Sanguineous discharge (Sanguinolentæ)
     - By Exhalation
     - By Rupture
3. Hæmorrhoids with tumours (Tumentes)
   - Varicose (Variscæ)
     - Dry
     - Bleeding
   - Mariscous (Mariscæ)
     - Dry
     - Bleeding from dilated pores
4. Painful Hæmorrhoids (Dalentes)
   - Inflammatory
   - Nervous
   - Fissured
5. Hæmorrhoids with constriction of the anus (Cum constrictione ani)
   - Indolent
     - From induration of the tissues
   - Painful
     - Spasmodic
     - Scirrhous

* "Des Hémorrhoides ou Traité Analytique de toutes les Affections Hémorrhoidales," par A. J. De Montègre. Deuxieme Edition. Paris, 1830. P. 71.

6. Hæmorrhoids with ulceration (Ulceratæ)
   - Superficial
   - Fistulous
7. Hæmorrhoids with prolapsus (Cum prociden-tia ani)
   - From elongation of the internal membrane
   - From invagination of the intestines
8. Hæmorrhoids with irritation of the bladder (Cum irritatione vesicæ urinariæ)
   - With dysuria
   - Strangury
   - Hæmaturia

For all practical purposes it is only necessary to divide them into two classes, namely, internal hæmorrhoids, or those which occur within the margin of the anus, and involve the mucous membrane of the intestine, and those which occur external to the sphincter ani, and are covered by the thin integument of the anus.

The nature and structure of hæmorrhoidal tumours have not been clearly understood till within recent times. By the older writers they were considered to be dilatations of veins, the same views being adopted by many modern authors, and at the present time a very general opinion prevails that they are simple varices, and analogous to that morbid condition observed in the spermatic veins constituting varicocele, or to the dilatation of the superficial veins of the legs, which causes so much distress, and so

often gives rise to a very troublesome form of ulceration.

External hæmorrhoids—These tumours occur at the verge of the anus, and are covered by the thin integument of that region, but occasionally they will be observed to extend a short distance within the anal orifice, and will then be partly covered by the integument, and partly by the mucous membrane of the intestine. In form they are mostly globate, and have a broad extended base ; they are of a livid colour at first, but lose that as their active state subsides. They are tense and elastic to the touch, and exquisitely painful when inflamed, the anguish then being so great that the patient is unable to walk or take any exercise—in some cases even sitting is impossible. They consist of the integument and cellular tissue into which blood has been extravasated, as a result of a congested state of the hæmorrhoidal vessels and determination of blood to them, produced by causes to be hereafter mentioned ; generally the blood is encysted in a central cavity, with a smooth glistening surface ; in some cases there are several of these cavities filled with blood.

After the acute stage attending the development of these tumours has subsided, the blood that has been effused into their interior becomes absorbed, and if they have not been distended to any great extent the

skin contracts, and the parts resume their natural condition ; but if the tumours have attained the size of a cherry, or are larger, the elasticity of the integument will have been destroyed by over distension, and upon absorption of the fluid contents a pendulous flap remains, prone to take on increased action from slight causes.

When several attacks of external piles have occurred, the cellular tissue of these tumours, by inflammatory action, become infiltrated with lymph, and condensed, and they do not then collapse on the subsidence of the inflammatory stage, but remain permanent, and give rise to other lesions, which occasion as much or more suffering than the primary disease.

Mr. Howship* describes another form of external pile, which he terms the serous hæmorrhoid ; he thinks the difference in structure depends on the strength of the constitution ; the sanguineous hæmorrhoidal tumour occurring in the strong, and the serous in those of low vital powers. He very justly dwells on the necessity of drawing a distinction between the two kinds, as our treatment will thereby be influenced. This serous hæmorrhoidal tumour is pale, elastic, shining, semi-transparent, and more fre-

* "Practical Observations on the Symptoms, Discriminations, and Treatment of some of the most important Diseases of the Lower Intestine and Anus." By John Howship. 1824. P. 208.

quently forming a ring round the verge of the anus than appearing as a distinct tumour. I have, many times, observed these swellings, but cannot agree in considering them as a separate variety of hæmorrhoidal tumour, but as an œdematous distension of the loose cellular tissue and thin skin of the parts, depending on irritation in the immediate vicinity. This state is more frequently seen as an effect of inflamed internal hæmorrhoids than from any other cause, though I have witnessed it occurring from fissure of the anus, acrid intestinal secretions, and similar conditions.

Internal hæmorrhoids.—The tumours constituting internal piles, consist of a morbid alteration in some portions of the mucous membrane of the rectum, and submucous areolar tissue, with an augmented and abnormal development of the capillary vessels. Like the external variety, they were formerly considered to be a dilatation of the veins. It appears somewhat surprising that this opinion should have been retained by many of the later writers, for when speaking of the character of the hæmorrhage, they describe it as florid and bright, and more nearly resembling arterial than venous blood, which it would not if it were poured out from veins, particularly when they are in a dilated and debilitated condition; in them the circulation must necessarily be slow, and, conse-

quently, the blood would acquire a deeper colour. But examinations on the living subject, and dissections on the dead, clearly demonstrate a different condition. A varicose state of the hæmorrhoidal veins is not unfrequently met with; however they form tumours very different in character and in the symptoms they occasion from those now under consideration.

By dissection, internal hæmorrhoidal tumours will be found to consist of both arteries and veins, the latter capacious, not in a diseased condition, but merely of abnormal development; the areolar tissue of the mucous membrane is hypertrophied, and if the tumours have existed long, and been subject to repeated inflammatory attacks, it will also be condensed. The surface of these tumours is villous, presenting to the unassisted eye a granular appearance; they generally bleed freely if rudely touched, or accidentally scratched by the nail during an examination, the blood being of a bright red colour. Dr. Bushe states, he has been able to rub off an exceedingly vascular and fragile adventitious membrane from their surface, and is of opinion, they may thus acquire an increase in magnitude. To the touch they have a spongy elastic feel, and by some authors are considered to resemble erectile tissue in structure; had they compared them to those ab-

normal developments of the vascular system termed aneurism by anastomosis, the analogy would have been more correct.

Internal hæmorrhoids vary much in size and number, but the accessory phenomena attending them, such as pain, hæmorrhage, &c., are not increased in proportion to either, and cases are met with in which a greater loss of blood occurs, or a greater amount of pain and suffering is induced, from one or two small piles than when there are several large ones.

When one of these tumours is situated near the anus, though it may not have attained any great size, it is very liable to be prolapsed during defecation, particularly if the bowels are costive, giving rise to pain, spasm of the sphincter, and other distressing symptoms. Those that are situated higher in the bowel are not prolapsed so early in the disease; but, by repeated irritation and the dragging down they experience during the time the fæces are evacuated, they become elongated, and at length protude externally; at first they return within the anus by the action of the muscles of the part, but after a time the patient finds he is obliged to replace them with his fingers; in some cases this is done with facility, but others present where greater difficulty is experienced, owing either to the size of the tumours, or to their being constricted by the sphincter muscle;

under these circumstances the suffering is very great, and the individual is induced to postpone the calls of nature, or defer them till the night, finding it easier to return them whilst he is in the horizontal position, in which he also experiences more speedy relief from pain. In many cases, when the tumours are large and numerous, and have been subject to prolapse for a length of time, the sphincter and tissues of the anus lose their tone, are much relaxed, and the patient is subject to constant annoyance by the protrusion whenever he attempts to walk, and even by riding in a carriage ; nor is the prolapsus in this stage confined to the tumour alone, for the bowel, having lost its support, the pouch of the rectum is easily dragged down by the weight of the morbid growths, and by the expulsive efforts at stool.

As a consequence, or complication, some of the following phenomena always attend hæmorrhoidal tumours ; inflammation, pain, hæmorrhage, mucous discharge, ulceration, abscess, fistulæ, fissure, prolapsus, and irritation propagated to other organs, as the urethra, bladder, prostate gland and testicles in the male, and to the vagina and womb in the female.

Inflammation, in a greater or less degree, always accompanies the formation of piles ; it may not be very severe at first, nor occasion much inconvenience, being marked only by itching of the anus, and a

sense of fulness and slight aching; in other cases the inflammatory symptoms will be much more prominent. When it has recurred several times, and the tumours have become permanent, the pain will be very great. Inflammation, if not checked by artificial means, or by the supervention of the hæmorrhoidal flux, may induce various morbid actions in the tumours, as ulceration, suppuration, &c.; it is, also, liable to extend to the contiguous organs in either sex.

The pain attending hæmorrhoids will vary much in character and intensity in different cases, and will bear no proportion to the size or number of tumours which exist, being frequently most severe when only one small hæmorrhoid is present; the complications attending this affection will also have great influence with regard to it. In the quiescent state of the tumours there will merely be a sense of weight and fulness in the rectum; if inflammation be present there will be throbbing, heat, and aching, aggravated by defecation; should the complication of fissure exist, there will be smarting at stool, followed by spasm of the sphincter, and aching of an agonizing character continuing from half an hour to several hours.

In some cases the pain will extend to the urinary and genital organs in either sex, up the sacrum to the

loins, to the hips and down the thighs. I have seen a case where the pain was chiefly located in the heel and under part of the foot, and have observed the same in several patients who had stricture of the urethra; in them it was, at first, increased by passing the catheter, but subsided as the strictures yielded to treatment. Sir Benjamin Brodie mentions an instance where pain in the foot was the prominent feature of the hæmorrhoidal affection. He says, "A lady consulted me concerning a pain to which she had been for some time subject, beginning in the left ankle, and extending along the instep towards the little toe, and also in the sole of the foot. The pain was described as being very severe. It was unattended by swelling or redness of the skin, but the foot was tender. She laboured also under internal piles, which protruded at the water-closet, at the same time that she lost from them sometimes a larger and sometimes a smaller quantity of blood. On a more particular inquiry, I learned she was free from pain in the foot in the morning; that the pain attacked her as soon as the first evacuation of the bowels had occasioned a protrusion of the piles; that it was especially induced by an evacuation of hard fæces; and that if she passed a day without an evacuation at all, the pain in the foot never troubled her. Having taken all these facts into consideration, I prescribed for her the

daily use of a lavement of cold water ; that she should take Ward's paste (confectio piperis composita) three times daily, and some laxative electuary at bed-time. After having persevered in this plan for the space of six weeks, she called on me again. The piles had now ceased to bleed, and in other respects, gave her scarcely any inconvenience. The pain in the foot had entirely left her. She observed, that in proportion as the symptoms produced by the piles had abated, the pain in the foot had abated also."

Hæmorrhage is one of the most frequent of the accessory phenomena of internal piles, and at times the most prominent symptom, and, when excessive is also the most alarming from the serious effects thereby occasioned ; it usually takes place during the evacuation of the contents of the bowel, occurring after the passage of the fæces, but sometimes preceding them. It is mostly of an active character, but may become passive by the vessels being debilitated, and the blood attenuated, as a consequence of the profuseness of the hæmorrhagic discharge. The colour of the blood evacuated is a bright vermilion, and is exuded by the capillary vessels of the mucous membrane of the tumours or excrescences constituting the piles; this will be very evident on examination when they are prolapsed. In other cases the blood will be projected in fine streams, as if from minute

vessels or dilated pores, but we are not able to detect these after the hæmorrhage ceases.

The severity of the concomitant symptoms denoting a loaded state of the hæmorrhoidal vessels is not always an index of the amount of hæmorrhage that may occur, sometimes the discharge of blood being trifling though the preceding premonitory signs have been strongly marked; whilst, in other cases, the loss of blood will be very great, notwithstanding that little discomfort or inconvenience has previously been experienced.

In the commencement of the hæmorrhoidal affection the bleeding will usually cease after a few days, and the several attendant symptoms then subside; yet not unfrequently the bleeding will continue for a much longer period. Some individuals experience but one attack during life; while in others, it may return at uncertain intervals of weeks, months, or years; or again, it may assume a periodic character, and return at longer or shorter, but regular intervals. As a general rule, the bleeding increases both in frequency and amount with the duration of the disease. In females it is not unusual to observe the hæmorrhoidal discharge interfering with or becoming vicarious with the catamenial functions, and in some instances, these discharges will alternate.

There can be no doubt the quantity of blood lost

in many of the cases recorded must have been greatly exaggerated, and patients are always prone to imagine it larger than it really is from the alarm created in them at the sight of blood, also from the show it makes on their linen and clothes, as well as the liability of its admixture with other fluids imposing on their inexperience. It will be difficult to give entire credence to the following. Montanus,* according to the report of Schwevcher, saw a patient who had passed two pounds of blood for forty-five successive days, and finally recovered. Cornarius† mentions the case of a gentleman, who, after drinking freely of Hungarian wine, lost two pounds of blood from the nose, and six pounds on each of the four following days from the anus. Nevertheless he got well without any remedy. Pomme‡ gives the case of a man, thirty-six years of age, of an atrabilious temperament, who for a long time had been subject to an excessive hæmorrhoidal flux, for which he tried many remedies without obtaining relief. At length, having adopted the idea that it had a venereal origin, he underwent an antisyphilitic course of treatment, in consequence of which the flux disappeared. However, he was soon attacked with distressing symptoms of cholera, when

* Append. Consilior Montani, p. 59. Basil, 1588.

† Observ. Med. 26.

‡ "Traités des Maladies Vaporeuses."

the hæmorrhage re-appeared. During a month he lost nearly a pound of blood daily, which was followed by colic, pains of the face, and extremities. By a generous diet, nutrient injections, and cold baths, the hæmorrhage was arrested, and exercise on horseback rendered him convalescent. Lanzoni* cites the case of a priest who daily passed a pint of blood per anum. Ferdinand† says that a girl, twenty years of age, of a sanguineous temperament, sedentary habits, and endowed with much vivacity, in consequence of a violent chagrin, arising from jealousy, became affected with hæmorrhoids, and for many months daily evacuated about half a pint of blood while at stool. The menstrual discharge ceased, her face became pallid and œdematous; under proper treatment she perfectly recovered. Panarola‡ knew a Spanish nobleman who, for forty years, rendered each day a pint of blood per anum, and at the same time enjoyed perfect health. Harris§ says, a widow of meagre frame and bilious temperament, lost upwards of four pounds of blood from hæmorrhoids in a few hours; during the night, she nearly died from exhaustion; however, the

* Consult. Med. 97. Oper. t. ii. p. 203.

† Hist. Med. 16, p. 40.

‡ Observ. Med. pentec. ii. Obs. 46.

§ De Morbis Aliq. Gravior. Obs. x.

bleeding was arrested by the application of cloths soaked in spirits of wine. Bozelli * mentions the case of a tailor, who lost as much as ten pounds of blood at a time. This man was nevertheless vigorous, and of a jovial character. Bozelli diminished this flux by means of the syrup of roses. Spidler saw a potter, who after having suffered for a week with pain in the loins, was seized with violent colic, and severe vomiting. A cathartic was administered, which relieved him; but he passed from twelve to fourteen pounds of vermilion coloured blood from the anus, in twenty-four hours, each dejection being accompanied by a slight colic pain. After many remedies were tried in vain, the hæmorrhage was arrested by a stimulating injection. Hoffman says he saw a widow, fifty years old, of a very full habit, who, in consequence of an indolent course of life and full living, was, for eight years, subject to hæmorrhoids, at the same time she continued to menstruate. The uterine discharge having ceased, and being blooded but once, she was seized, towards the autumnal equinox, first with lassitude, and then with coma, for which she was bled in the foot, and took cold water in large quantities without any benefit. At the end of two days, however, a stimulating lavement was administered, when an excessive flux of blood occurred, amounting in twenty-four hours to more

* Observ. Med. 44.

than twenty pounds; the consequence of which was a cessation of the coma. Her strength gradually returned by the employment of invigorating and gently astringent remedies, together with enemata of cold water. Smetius* relates a case of a man, forty years of age, who passed per anum at least thirty pounds of blood in two or three days. He was cured by a tonic plaster. Finally, Pezold† speaks of a Saxon chevalier, who in one attack, lost sixty-four pounds of blood.‡

The amount of hæmorrhage in different cases varies much; in some it is but trifling, perhaps not more than a few drops, or at most a teaspoonful, whilst in others, it may be from one to several ounces, or even as much as a pint, depending on the general condition of the patient, and the presence or absence of irritation or vascular excitement in the pelvic viscera. At first the discharge of blood may be salutary in effect, by relieving the congested condition of the vessels or liver giving rise to the local affection. Frequently the patient will experience a relief of the feeling of weight and fulness in the perinæum and rectum, and the other unpleasant symptoms that existed, by the loss of a small quantity of blood. The occurrence of the hæmorrhagic flux may serve for a time to ward off fatal effects by preventing vascular

* Miscel. Med. 1. 4. Epistol. 9. p. 222.

† Obs. Med. Chir. 51.

‡ Montègre, Op. cit. pp. 27—30.

determination to organs important to life when they are affected by disease. But when the bleeding is great, or becomes habitual, the constitution suffers and a train of unpleasant symptoms arise; the patient becomes pale, the florid colour of the lips in health fades, the gums and tongue are blanched, the complexion is sallow and dingy, and has a peculiar waxy appearance; deficiency of physical and mental energy supervenes, he is listless, his sleep is disturbed, the temper becomes irritable and peevish, frequent headache occurs, which is increased by the upright position, and relieved by the horizontal posture; the heart's action is easily excited, and will palpitate violently by slight bodily exertion or mental agitation; there is difficulty of breathing, particularly in going up stairs, or ascending an incline, and, finally, as a consequence of the anæmic condition of the patient thus induced, œdematous swelling of the feet and legs occurs.

Mucous discharge from the anus is a very frequent and annoying accompaniment of hæmorrhoidal affections. It varies much both as to quantity and appearance; in a female patient I attended the commencement of last year it was most profuse, and ran down her legs while walking, and constituted the chief source of annoyance to her. When active irritation of the mucous membrane exists, the discharge

is watery, resembling a thin solution of gum, and is frequently acrid, producing excoriation of the surrounding parts. When the secretion is the effect of chronic irritation, it is gelatinous in appearance, and resembles frogs' spawn, or the white of an unboiled egg. If the secretion is watery it exudes from the anus, and soils the patient's linen, and renders him otherwise uncomfortable ; when tenacious and moderate in quantity, it is discharged at stool only, but if profuse, any exertion, such as running, walking, riding, either on horseback or in a carriage, and even laughing and sneezing, will cause its ejection.

Ulceration of the surface of the mucous membrane of piles, is the result of severe inflammatory action, or is produced by friction and irritation of the patient's clothes, when the tumours are subject to prolapsus ; if arising from the former cause, it attacks the follicles, and penetrates deeply ; whilst from the latter, the ulcerated surface will be more extensive but superficial. External piles are more often affected by ulceration than internal ones, especially when they have become permanent and indurated, in consequence of repeated inflammatory attacks. We not unfrequently meet with small abscesses and sinuses in this last class of tumours. Occasionally abscess will occur in the cellular tissue of the rectum, by its implication in the inflammatory

action, or by perforation of the mucous tissue by ulceration, and thus lead to the formation of fistula in ano. Should abscess form in the male anterior to the anus, and press upon the urethra or neck of the bladder, retention of urine may be superadded to the patient's other symptoms. In females, the abscess will extend to one of the labia, or open into the vagina, forming recto-vaginal fistula, or, by bursting externally by the side of the bowel, establish fistula in ano.

Fissures of the anus, as a complication more frequently takes place when the piles are external, and have existed for some time, and the tissues, by chronic inflammation, are indurated and rendered less yielding to distension. They commence as slight cracks or tears, resulting from the passage of bulky and hardened fæces, and increase by the ulcerative process, from the constant irritation they are afterwards subject to by the action of the bowels and the lodgment of fæcal and acrid matters. The pain accruing from this complication is very distressing; it is induced each time the bowels act, and will continue for several hours afterwards attended with spasmodic contraction of the sphincter ani.

The sufferings and inconvenience to a patient affected with internal piles, is often greatly increased by their protruding external to the anus. When

the tumours are situated immediately within the rectum, they are subject to prolapsus in an earlier stage of the disease, owing to the eversion of the lower part of the mucous membrane, which occurs at the time of emptying the bowels, and to the fæces thrusting the tumours before them; when situated higher up in the intestine, they do not descend at so early a period, but, by the pressure and elongation they are subject to from the passage of the fæces, they at length protrude externally. At first the piles are retracted within the anus by muscular action alone after the bowels have been relieved, but, in process of time, this no longer occurs, and it becomes necessary to return them. Another source of distress from the prolapsus of piles, is their liability to strangulation, either by the spasmodic contraction of the sphincter, or by sanguineous engorgement; under these circumstances the assistance of a surgeon will be required to effect the replacement of the extruded parts; if the patient delays seeking the necessary aid, mortification takes place, endangering his life should the constitution be impaired by any cause, or the vital powers be naturally feeble; if the contrary condition exists, and the general health be good, the tumours will slough off, and a cure will thus be effected, but at the expense of much suffering.

The converse condition of the anus to the preceding will cause serious distress to some ; the sphincter, having lost its tone, and becoming greatly dilated by the frequent protrusion of the piles, by their great size, and by the long persistence of the disease ; in which case the patient will not only be subject to the annoyance of prolapsus of the bowel with its attendant miseries, but will be unable to retain his fæces.

In addition to the complications and consecutive consequences which have already been considered, others will arise ; thus, in the female, by the contiguity of parts, the vagina and uterus are liable to be affected; whence arises leucorrhœal discharge more or less profuse in quantity, accompanied by pain and distressing bearing-down sensations ; in the male, from the same cause, and the free anastomosis which exists between the prostatic plexus of vessels and those of the rectum, the prostate gland may be affected, inflammatory action excited, inducing enlargement and other evils ; the neck of the bladder will not unfrequently be sympathetically involved, and strangury or retention of urine, result. By the long continuance of chronic inflammation from hæmorrhoidal disease, stricture of the rectum sometimes occurs.

Numerous causes tend to excite hæmorrhoidal disease. In some cases we shall be able to trace it

to hereditary predisposition, age has its influence, sex, climate, and period of the year, also have effect. Plethora, particularly when combined with sedentary occupations and indulgence in the pleasures of the table, strongly predisposes to the disease; mechanical and pathological obstruction to the venous circulation of the intestine, is another cause; irritation within the intestine as from ascarides; diarrhœa, dysentery, irritating enemata, the injudicious use of mercury, certain stimulating purgatives, highly seasoned dishes, and certain alimentary substances; diseases existing in contiguous parts, as of the prostate gland, stricture of the urethra, stone in the bladder, &c., will give rise to hæmorrhoids, and, lastly, may be mentioned, excessive venery and masturbation.

It will be desirable to trace how far, and in what manner, the several causes that have been mentioned operate in inducing the disease.

Hereditary predisposition sometimes promotes the establishment of the disease, not so much by any local tendency to the formation of piles, as by a similarity of constitution and general organization. Thus we shall find both parents and children to be of a bilious temperament, of lax muscular fibre, the venous system of an augmented state of development, and the nervous sensibility exalted, whereby the depressing passions have a greater influence. This hereditary

aptitude to hæmorrhoidal affections has been traced by many authors; Bushe* has observed it in several families in connexion with similarity of organization, and also where that did not exist. A French author† mentions an instance of a family of nine people who were thus afflicted.

From several circumstances we do not often meet with hæmorrhoids till after the age of puberty; diseases from sanguineous engorgement more frequently in early life attacking the head and chest than the abdominal organs; however, some months since I had a child of two years of age under my care at the Blenheim Dispensary, suffering from external piles. One author mentions two cases occurring in his practice, in which one patient was between six and seven years of age, and the other five, the latter also had stone in the bladder. Other practitioners have met with the disease at an early period, but this is very far from being commonly the case. In the middle period of life we find all diseases of the abdominal organs more frequent, owing to the peculiar susceptibility then existing to vascular repletion and engorgement of this region; the circulation is less rapid in the adult, and that portion of the vascular system returning the blood

* Op. cit. p. 170,

† M. J. B. de Larroque sur Les Hæmorrhoides. Paris, 1819.

to the heart is more fully developed in mature life. It is after the age of puberty that the various affairs and occupations of life engage the attention; then the habits become sedentary; depressing passions and the influence of temperament appertain also to the middle period of existence. Females who have enjoyed immunity from hæmorrhoidal affections during that portion of their lives when the menstrual functions were regularly performed, not unfrequently become the subjects of them at the climacteric period, especially those who are plethoric, and, in such cases, the hæmorrhoidal flux may be regarded as salutary, by diverting those congestive affections from the several important organs, that so often succeed the cessation of the catamenia.

Great diversity of opinion prevails as to the relative frequency of hæmorrhoidal affections in males and females. Much will depend on the circumstances in which both are placed. Montègre thinks them more common in females in an occasional or accidental form; and to occur in males in a more regular and constitutional form. The experience of Mr. Syme and Dr. Bushe tends to confirm their greater frequency among men; the latter writer supposes the menstrual function should sufficiently relieve the system of sanguineous repletion; certainly, in the majority of cases of hæmorrhoids occur-

ring in females that have come under my observation, the catamenia have either been suppressed, or the function more or less deranged, but in some cases this will be rather an effect than a cause. Females who are plethoric are very liable to be the subjects of hæmorrhoids at the turn of life, when the menstrual flow ceases; and, in some instances, these discharges alternate with each other for some time before the uterine functions entirely subside.

Warm, moist, and miasmatous climates dispose to hæmorrhoidal affections, by inducing general relaxation, and of the venous system in particular; they also favour congestion of the abdominal viscera, and develope the bilious, sanguineo-bilious, and melancholic temperaments. The morals and manners of life of the inhabitants of these countries will, however, exert great influence. In dry climates, whether cold or temperate, these affections are less frequent, as is also the case with regard to many other diseases. In our climate the variableness of the temperature often produces congestion of the internal organs, giving rise to various inflammatory and morbid actions; these are more liable to occur if the functions of the skin have been excited from any cause, and then checked by its being suddenly cooled down by a rapid fall in the atmospheric temperature.

Those periods of the year in which the vicissitudes

of temperature are greatest predispose more to the development of these affections than when the weather is either warm or cold, but equable. Some writers think these diseases occur more frequently in spring, from the phenomena of life being more active at that season, the blood being more readily formed, and in greater quantity, also that the increased temperature expands the volume of the circulating fluid. It is also asserted, that northerly and north-easterly winds bring on the hæmorrhoidal discharge, but I presume they have no specific influence further than by checking the cutaneous exhalation, and thus determining the blood internally.

Plethoric individuals are more liable than others to be affected with hæmorrhoids. In them the state of repletion of the vascular system is often induced by partaking of a larger amount of aliment than nature requires, combined with a deficiency of exercise, which also excites several of the other causes co-operating in producing diseases of the rectum.

Any impediment offered to the return of the blood from the lower bowel will cause hæmorrhoids. It will arise from two causes, the one being mechanical in its immediate effect, the other pathological, and depending on disease and alteration of structure in some of the internal organs. Those causes which act mechanically are the pregnant uterus, ovarian and

other tumours developed in the pelvis or abdomen, which, by pressure on the large venous trunks, impede the ascent of the blood; tight lacing and cinctures also have the same effect. The pathological causes are congestion and structural diseases of the liver, pancreas, and spleen; diseases of the lungs, heart, and large blood-vessels, interfering with the free circulation of the blood.

Hæmorrhoids are frequently a concomitant of pregnancy, and in this state are of the accidental or occasional form, and induced by the gravid uterus pressing on the venous trunks, and by the general plethora which exists during this period.

Constipation is one of the most frequent and common causes of hæmorrhoids which we meet with; it tends to induce the disease in several ways; thus, when the fæces are retained, they become indurated and impacted, and produce irritation of the mucous membrane, and consequent afflux of blood to the rectum; by accumulation they distend the intestine, and, pressing on the veins, interfere more or less with the return of the blood. In this habit of body the hæmorrhoidal vessels become greatly engorged during the act of defecation from the violent efforts of the expulsatory muscles, and the congestion, arising during the temporary suspended respiration, that always attends violent muscular action.

Those persons whose habits of life are sedentary are very generally the subjects of piles, more especially if they indulge freely at table. By inactivity of body, the functions of the several emunctory organs are diminished, and, not the least important, that of the skin, which, when properly performed, frees the system of the products of the effete tissues, which, if retained, have a most pernicious effect on the animal economy generally. From deficiency of exercise the function of the liver is lessened, and congestion is very liable to occur. Constipation, and its effects, as a result of this mode of life, is nearly always present. The sitting position maintained by persons of the habits under consideration determines the blood to the hæmorrhoidal vessels. From these circumstances, it is very common to meet with hæmorrhoidal diseases among clergymen, barristers, lawyers, those confined to the counting-house, and among the working-classes, the nature of whose occupations compels them to sit many hours, as dressmakers, tailors, shoemakers, and others. It is very common for individuals thus circumstanced to have the hæmorrhoidal discharge occurring in a regular manner, and, when moderate in quantity, having rather a beneficial effect than otherwise, and possibly saving them from some more serious malady.

Sometimes the hæmorrhoidal flux will appear as

a translation of hæmorrhagic discharge from some other organ; thus arresting and keeping in abeyance morbid action that has given rise to hæmoptysis, hæmatemesis, epistaxis, &c. Bushe mentions having observed several instances in which this occurred, and records two cases: the one of a gentleman from Ireland, who had hæmoptysis, which ceased on his being attacked with hæmorrhoids, and he enjoyed good health; resorting to Paris, and being annoyed by the piles, he had them removed by Baron Dupuytren; after that he returned to America, and laboured under a determination of blood to the head, of this he was relieved by leeches to the anus and by the administration of aloes and blue pill. The other case is that of a gentleman subject to epistaxis, and who suffered from a series of cerebral symptoms, consequent on its suppression. Dr. Bushe being consulted, prescribed stimulating pediluvia and brisk purgatives. On the patient feeling a desire to defecate, he discharged about a pint of blood per anum, to the immediate relief of the head symptoms; a regular hæmorrhoidal flux continuing, he had no return of the epistaxis, or any of the unpleasant circumstances attending its suppression.

Mental emotions and passions, both exciting and depressing, are causes of hæmorrhoids; thus anger,

fear, sorrow, ennui, &c., excite a remarkable and vital action of the ganglionic nerves of the abdomen, manifested by a sense of sinking, weight, constriction, and pain at the epigastrium. The result of this impression is extended to the surface of the body; the cutaneous vessels contract, inducing pallor, and the blood, driven from the surface, accumulates in the internal organs, producing vomiting, indigestion, derangement of the liver, jaundice, diarrhœa, or the hæmorrhoidal flux.

Internal irritation from a variety of sources will produce these affections. Ascarides, which infest the lower portion of the alimentary canal, are not an infrequent cause; irritation arising from diarrhœa and dysentery will excite the hæmorrhoidal discharge, and we shall observe it not unfrequently as a crisis in other diseases; thus it occurs in fevers, particularly bilious and gastric fevers; also when inflammation has attacked the brain or any of the organs lodged in the thoracic and abdominal cavities; and in other conditions of the system, as hypochondriasis, &c.

Diseases of contiguous organs, by inducing an afflux of blood to the pelvic viscera and by extension of inflammation and irritation, are common causes of hæmorrhoids; we observe them accompanying disease of the prostate gland; occurring as a consequence of stone in the bladder; the effect of stricture of the

urethra consequent on the vascular turgescence and violent straining in micturating attending the aggravated forms of the latter affection.

Excessive venery and masturbation, by producing relaxation of the system, and by determining the blood to the organs in the pelvis, produce hæmorrhoidal disease.

Certain purgatives and drastic medicines, as aloes, scammony, gamboge, black hellebore, rhubarb, the neutral salts, &c., particularly if prescribed in too frequent and too large doses, induce hæmorrhoids; they act directly by irritating the mucous membrane of the rectum, and by inordinately exciting that portion of the intestine, and the lower part of the colon. Of all medicines calomel and the other preparations of mercury have been productive of most mischief in the affections we are now considering, as well as inducing other diseases of the digestive organs. It is not from the use of the mineral, but its general abuse, that the evil arises; the practice is justly reprobated by Drs. Copland, Elliotson, and other writers on the practice of medicine. It may however be questioned whether all the medicines first mentioned, when properly administered, exert much influence in inducing the disease, and whether it is not rather to the state of the constitution rendering these

medicines necessary, that we should ascribe the local affections. They will severally readily reproduce the hæmorrhoidal flux when once it has taken place, but it is not to be inferred from this, they will cause the disease, as morbid action having once occurred in a part is much more easily re-established even by slighter causes; therefore, before attributing the malady to medicines, it is essential to ascertain if there may not be other causes to which it may owe its origin.

As well as living above par, conjoined with a deficiency of exercise, we shall be able to trace the disease in some people to eating various alimentary substances, particularly highly seasoned dishes, spices, onions, shallots &c., to partaking of very hot or cold beverages, or too great a quantity of stimulating drinks: certain wines such as claret, champagne, also cyder and beer, will, in some individuals, readily induce the affection.

The local application of cold or heat, as sitting on stone seats, on the cold and damp ground, on damp cushions, the habit of standing with the back to the fire, riding rough horses, prolonged walks in hot weather, travelling a number of consecutive hours in a carriage, sitting on pierced seats whereby the blood gravitates to the anus, consequent upon its being unsupported, also the obstruction to the circulation

from the pressure on the surrounding parts ; stimulating pediluvia, irritating and large enemata, are other causes of hæmorrhoidal affections.

The symptoms attending hæmorrhoidal diseases vary much and are greatly influenced by the state of the general health of the patient, the exciting cause whether accidental or constitutional, and the complications with which they are associated, and also by the piles being internal or external.

In the first attack, the patient will probably experience but slight inconvenience. If the disease is only of the congestive form there will be itching and a sense of weight and fulness in the rectum, with uneasiness in the perinæum ; in a few days bleeding may occur, but does not always take place in the early attacks, and when it does it is usually critical, all the symptoms and discomfort disappearing for the time. If the disease does not thus subside, but is permitted to increase, or when several attacks have been experienced, the symptoms will be augmented in number and severity, and, in addition to the weight and fulness at first felt, there will be heat and throbbing, the pain at stool will be greater and will continue for some time afterwards ; pain will also be felt up the sacrum, in the loins, and down the thighs ; after a short time a flow of bright blood will be observed either preceding or after defecation ; usually

increasing in quantity with the duration of the disease, and often becoming the most prominent symptom, and causing great derangement of the general health. As the disease progresses a feeling of the presence of a foreign body in the rectum will be experienced, and at stool one or more tumours will be protruded ; at first they are retracted spontaneously after the action of the bowels, but, in process of time, from increase in size and loss of tone in the parts, it becomes necessary for the patient to replace them with his hand. Should the piles become constricted by the sphincter many of the symptoms of intussusception or strangulated hernia may be induced. In weak and debilitated persons the sphincter loses its tone, the anal orifice becomes dilated, and the hæmorrhoidal tumours will then descend upon the slightest exertion, or even when he is in the erect position, causing great annoyance and discomfort ; in this condition they will be liable to ulceration from the friction to which they are exposed by contact of the clothes. A mucous discharge soiling the linen is a frequent symptom; it is some times so profuse as to run down the patient's legs whilst standing; it may also be very acrid and produce excoriation of the external parts, adding greatly to his other sufferings.

By sympathy and contiguity, the irritability and sensibility of the bladder and urethra will be

increased, micturation will be more frequent, and, in the aggravated form, we shall observe the opposite effect, strangury, or even retention of urine.

All patients who are the subjects of hæmorrhoids suffer more or less from constipation, with its concomitant symptoms, flatulence, pain, and constriction at the epigastrium, vomiting, &c. Where the disease is fully established, particularly if much blood has been lost, there will be pallor, and a peculiar dingy waxy appearance of the countenance, the respiration will be hurried and irregular, the heart's action readily increased by the slightest bodily exertion or mental emotion; this is often so distressing as to lead the patient to think he has disease of that organ, for which he may seek advice, and, by dwelling too exclusively on this one effect, may mislead his medical attendant from the real disease.

Giddiness, drowsiness, weight and pain in the head, are very common symptoms in these affections, and, occasionally, spasm and rigidity of the extremities will be complained of. The attacks are not unfrequently ushered in by rigors ; the tongue will be furred, large, and deeply notched by the impressions of the teeth ; the skin will be harsh and dry; the functions of the kidneys deranged; the pulse increased in velocity, will be hard, and con-

tracted, or rendered weak, irritable, and quick, from debility, suffering, and loss of blood.

Hæmorrhoidal affections are liable to be overlooked from two causes, the one being a delicacy on the part of the patients, leading them to conceal the origin of their sufferings, the other the severity of some of the symptoms, or derangement of other organs consequent upon them, diverting the attention away from the real seat of disease; however a careful investigation into the origin and history of the case will not fail to elucidate its true nature.

The diagnosis of hæmorrhoids will not be attended with much difficulty, there being few diseases with which it is possible to confound them, and the error then can only occur by taking alone into consideration one of the prominent features of the affection.

Hæmorrhoidal tumours may be mistaken for polypi of the rectum, but the converse is more usually the case, particularly by patients themselves. Polypi are more gradual in their growth, they are not preceded or accompanied by the constitutional or local inflammatory symptoms that attend piles; in the benign variety of polypi hæmorrhage does not occur, except to a very slight degree, and that only on the passage of a bulky and costive stool; their surface is smooth and somewhat glistening, and not villous or granular, like hæmorrhoidal excrescences.

A very cursory examination will enable us to distinguish hæmorrhoidal tumours from prolapsus of the rectum ; in fact, the only form with which they can be confounded is when a fold of mucous membrane on either side descends, and, in the course of time, becomes thickened and rugous ; in this state, however, there is an absence of the ordinary symptoms of piles ; the prolapsed portion of the intestine is free from hæmorrhagic discharge, is not subject to alternations of turgescence, and flaccidity ; and, besides the extent of the base of attachment, we can glide the two surfaces of the membrane between the finger and thumb.

External hæmorrhoids, when their surfaces are ulcerated, may be mistaken for venereal excrescences, but by tracing the origin of the tumours, by the subsequent history of the case, and the absence of other symptoms of the latter affection, a correct diagnosis may be formed.

The most important distinction we have to consider, both in the prognosis, and with regard to treatment, is the source of hæmorrhage, which may be intestinal and not the result of piles. But here a little consideration will prevent error : intestinal hæmorrhage is generally a result of acute and dangerous visceral disease, and the constitutional disturbance attending it will be severe, and of marked

character; it more frequently accompanies the advanced stages of malignant fevers and general cachexia. The state of the blood discharged will enable us to form a tolerable correct opinion whether it be from piles or not; when it occurs from any portion of the intestinal canal above that which is the seat of hæmorrhoids it will be clotted, very dark, and mixed with the fæces and excretions, and will be passed at stool without any of the distress attending piles; nor shall we be able to detect by digital examination per anum any form of tumours or varicose state of vessels. But, on the contrary, if the hæmorrhage be from piles, the blood will either precede or follow defecation, will be florid in colour and fluid, with all the characters of being recently extravasated. There will also be the local symptoms attending these affections, as weight and fulness in the rectum, pain, and others which have been previously mentioned; these will be aggravated at stool; besides, examination will reveal the presence of one or more tumours, or other lesions.

Before commencing the treatment it is most important that a careful and minute examination of the rectum and anus should be made when a patient complains of any of the symptoms of hæmorrhoidal disease; firstly, that we may arrive at a correct knowledge of the peculiar kind of tumour, and the

condition of the parts, also as to the existence or not of any complication; and, secondly, because the accounts given by patients themselves are frequently inaccurate, and they are too apt to dwell on any one or more of the symptoms that may be most distressing to them.

In making an examination in the male he should be directed either to lean over the back of a chair, or to lie upon a sofa on his side with the nates projecting over the edge, and the knees drawn up; the latter position is preferable, and should always be adopted with female patients. The parts, when inflamed being acutely painful, all possible gentleness must be observed, particularly if fissure of the anus exist as a complication, as slight irritation will often induce excruciating agony. Previous to making a digital examination of the interior of the bowel, the cavity of the nail should be filled with soap, which will prevent it scratching the intestine, and the finger must be dipped in oil to facilitate its introduction; lard and unguents do not answer so well, as they interfere slightly with the delicacy of the sense of touch.

Having become acquainted with the abnormal condition of the parts, the next consideration is, whether the hæmorrhoidal affections are of a constitutional or accidental origin; it is on arriving at a just conclusion on this point that the principles of

treatment must be based, and on it our success must depend. When piles have existed for a long period, have continued from youth, or the commencement of puberty, when they supervene upon or replace some serious organic or habitual affection, if they are preceded by constitutional disturbance, and succeeded by an improvement in the state of the health, if well-marked indications of plethora exist, which is relieved by the accession of the hæmorrhoidal flux, and if indications of congestion, or disease in any of the organs accompany or follow its suppression or interruption, or an hereditary predisposition exists, a constitutional nature may be inferred, and local treatment must be a secondary consideration, and not adopted till the constitutional cause has been removed or palliated ; this is especially necessary if there is a predisposition, hereditary or otherwise, to apoplexy, gout, phthisis, hæmoptysis, epistaxis, or other kinds of hæmorrhage.

Various authors mention instances where a neglect of the consideration of the constitutional origin, and the adoption of a local treatment of piles, has been followed by serious or fatal consequences. Dr. Copland mentions three cases having come under his observation, in one of which fever was induced, in another apoplexy, and in a third melancholia, by the improper arrest of the hæmorrhoidal discharge. Mr.

Howship states the case of a gentleman subject to gout, who, in opposition to proper medical advice, was induced by a charlatan to have recourse to a strong vitriolic lotion with the effect of arresting the hæmorrhoidal discharge, but the patient soon after died of gout in the stomach.

The general treatment of hæmorrhoidal affections must consist in enforcing a strict observance of moderation in diet, due attention being paid both to the quality and nature of the aliment, as well as quantity ; all stimulating food and beverages must be forbidden, and only that allowed which is unirritating and easy of digestion ; this is a matter so important, not only in the diseases herein treated of, but in all others, that it would be well to give a patient written instructions on this point in the same manner as when medicines are directed to be taken. The bowels must be regulated, and constipation combated, by deobstruent laxatives and stomachic aperients. If fæcal accumulations in the colon exist, these must be removed by emollient enemata ; in many cases the use of O'Beirne's tube will be highly serviceable in dislodging the excrementitious matter. When the secretions and excretions of the chylopoetic viscera are depraved or deficient, means must be adopted to restore them to a healthy state ; for this purpose a few grains of the blue pill with one of

powdered ipecacuanha should be directed to be taken at bed-time, or mercury with chalk and extract of taraxacum may be substituted, and in the morning one of the following draughts should be taken :—

℞ Infusi Sennæ comp. ʒvi.
Infusi Gentianæ comp. ʒv.
Tincturæ Cardamomi comp. ʒj.
Fiat haustus.

℞ Decocti Cinchonæ.
Infusi Sennæ comp. āā ʒvi.
Fiat haustus.

If these are not sufficiently active, sulphate of magnesia, potassio-tartrate of soda or sulphate of potash may be added ; castor oil is a most useful laxative in these diseases ; a teaspoonful of the following electuary, taken either at bed-time or early in the morning, answers very well in moving the bowels once or twice.

℞ Confectionis Sennæ
Sulphuris Loti āā ℥j.
Pulveris Jalapæ ʒj.
Pulveris Zingiberis ʒss.
Sodæ Potassio-tartratis ʒiv.
Syrupi Zingiberis q. s.
Ut fiat electuarium.

The addition of two or three drachms of copaiba to the above will be very beneficial in many cases, but it renders the electuary so nauseous that some

patients cannot take it; if, however, it is made into boluses and wrapped in wafer-paper, it may be swallowed without being tasted. The functions of the skin and kidneys must receive most earnest attention, various diuretic and diaphoretic medicines must be prescribed, as the citrate of potash and nitrate of potash in camphor mixture; a solution of the acetate or citrate of ammonia, camphor mixture, sweet spirits of nitre, and the inspissated juice of the elder; other formulæ will readily suggest themselves to the practitioner.

The importance of regular and moderate exercise must be enforced on the attention of the patient; by it the whole of the vital functions are stimulated to a healthy action; thus the circulation is increased, particularly in the extremities, nutrition is more rapid, and the depurating and excretory organs are excited in eliminating matters that have served their purpose in the economy, which, if retained, are productive of much of the apparent derangement of the system.

The vicissitudes of temperature must be guarded against by proper clothing, and benefit will follow the occasional use of the warm bath, particularly when the action of the liver or skin is torpid. Both in external and internal hæmorrhoids ablution with soap and water night and morning will be attended

with great benefit and comfort. It is not merely by washing away irritating secretions and excrementitious matter that this results, but by a direct and specific effect of the soap on the parts themselves. In internal hæmorrhoids, or in congestion of the vessels of the rectum, the injecting of half a pint of cold water after each dejection will be of essential service ; the advantage resulting therefrom arises from a two-fold effect, the one by removing any feculent and irritating matter, the other by the immediate impression of the cold upon the nerves and vessels of the intestine.

The several complications and phenomena attending hæmorrhoids require special consideration with regard to treatment, bearing in mind, at the same time, the cause and origin of the disease. When symptoms denoting congestion and repletion of the hæmorrhoidal vessels are present, the bowels must be moved by castor oil, or the electuary before mentioned, or some other gentle purgative. It may be necessary to have recourse to the local abstraction of blood ; cupping over the sacrum or on the perinæum is preferable to the application of leeches around the anus ; it occupies less time, is less annoying to the patient, and does not produce the local determination of blood that leeches do. When the patient has previously suffered from hæmorrhage, leeches applied to the anal region will frequently reproduce it, or it

may appear for the first time by the determination of blood induced by their application. After the bowels have been moved and blood abstracted, the warm hip-bath will afford ease, or flannels wrung out of hot water applied to the perinæum and sacrum may be substituted.

When the tumours are inflamed local depletion will generally be necessary; for the reason just urged cupping will be more advisable than the application of leeches. If the piles are internal, and are prolapsed, they must be returned within the sphincter by gentle pressure, made by a fold of lint smeared with olive oil or spermaceti ointment; this must not be neglected, or, from vascular engorgement or constriction by the surrounding muscular fibres, mortification will probably result, occasioning severe constitutional disturbance and much suffering. Several instances of the disease being thus removed have come under my observation. In this manner the celebrated Horne Tooke was cured of a disease he had long suffered from. Sir Benjamin Brodie,* in his lectures, narrates the circumstance:—"Many years ago I was dining with Dr. Pearson, and after dinner he gave an account of Horne Tooke's illness. He said that he had long laboured under piles; that at last mortification had taken place; that there was

* "Medical Gazette," vol. xv. p. 746.

no chance of his recovery ; and he added, that he had that morning seen him for the last time. I remember that in the middle of this history there came a knock at the door, on which Dr. Pearson said, ' Here is a messenger with an account of my poor friend's death.' However it was some other message ; but by-and-bye a messenger did arrive, saying that Horne Tooke was much the same, or a little better. It turned out, as I have been informed, that the piles sloughed off, and from this time he never had any bad symptom. In fact, he was, if I have been rightly informed, cured of a disease which had been the misery of his life for many years preceding, and he lived for some years afterwards."

After the tumours have been replaced, hot poppy-head fomentations should be applied, to be succeeded by hot linseed-meal poultices. Some surgeons have advised punctures and scarifications of the inflamed and protruded piles ; it is a practice that should not be adopted, being founded on erroneous principles, and will only cause the patient much annoyance without affording the desired relief. Mr. Calvert says he saw a case of fatal hæmorrhage follow the practice. Montègre and Bushe alike condemn the proceeding. After the inflammation has somewhat abated, cooling and anodyne lotions will afford great relief ; an aqueous solution of opium with acetate of

lead and elder-flower water or rose water will answer the purpose. Enemata of cold water are beneficial in the later stage of inflammation; the instrument used should be provided with an elastic gum jet, as one of ivory or metal will be likely to injure the tender parts. The bowels must be kept gently open by means of an aperient electuary, castor oil, or other laxative.

If the tumours have fallen into a state of mortification from excess of inflammatory action, or from constriction by the sphincter muscle, meal poultices must be applied till they have sloughed off and the parts have become clean, afterwards the injection of slightly astringent lotions will promote the healing of the ulcers left by the separation of the sloughs. If the system is much depressed stimulants and bark, with the mineral acids, will be necessary, but the general treatment must be regulated according to the character and severity of the constitutional disturbance.

As previously stated, the pain accompanying these affections varies much in character and intensity, and is often greatest when there is little apparent change of structure in the part; it is generally aggravated by the several complications met with, being most severe when fissure of the anus and spasm of the sphincter are present. If pain is the result of the

acute stage of the attack, the treatment advised in the congestive and inflammatory conditions will relieve it; but it is sometimes intense when only slight structural alteration of the tissues exists unattended with active inflammation; under these circumstances, the bowels being first regulated, and any depraved condition of the excretions corrected, anodyne and opiate enemata must be used, or a bougie introduced a short distance up the rectum, previously smeared with one of the following unguents:—

℞ Opii pulveris gr. x.
Unguenti Cetacei ʒj.
Misce.

℞ Extracti Hyoscyami
Vel Extracti Conii ʒj.
Unguenti Cetacei ʒvij.
Misce.

℞ Hydrargyri c. Cretâ
Extracti Hyoscyami āā ʒj.
Unguenti Cetacei ʒj.
Misce.

When there is fissure of the anus, the last ointment, applied on strips of lint, will relieve the pain, and often induce the healing process; but if spasmodic contraction of the sphincter coexist, the extract of belladonna must be substituted for the hyoscyamus.

So long as hæmorrhage appears beneficial in relieving any organ threatened with disease, it must

not be arrested, however, any error in the constitution or habits of the patient that tends to maintain or increase it, should be corrected. When the loss of blood is frequent or large in quantity, and the patient thereby rendered weak and pale, and the irritability of the system increased, measures must be taken to moderate the flow, or to arrest it entirely. In the first place, the bowels must be regulated so as to act gently every day; for this purpose the lenitive electuary with sulphur; or sulphate of magnesia, and dilute sulphuric acid in a bitter infusion, or in the infusion of roses, may be taken early in the morning, and a teaspoonful of the confection of black pepper or Ward's paste, should be taken two or three times a day. The injection into the rectum, morning and evening, of four or six ounces of cold water, will be highly beneficial from their sedative and astringent effects. If the patient leads a sedentary life, he must take exercise daily in the open air, by which the secretions will be increased, and the circulation equalized. The food must be moderate in quantity, unstimulating in quality, and taken at regular and stated intervals.

Should feebleness and exhaustion be produced by the constant recurrence, or by the sudden profuseness of the hæmorrhage, active measures must be taken to arrest it, and afterwards means adopted to

restore the powers of the patient. The recumbent position is directed to be observed, and, if necessary, the pelvis must be elevated ; then, according to the urgency of the case, we must avail ourselves of the several remedies we have at command ; the injection of iced water or of metallic and vegetable astringents, as a solution of iron, copper, lead, or alum, or a decoction of logwood, oak, bark, pomegranate, bistort, or tormentil. I find a solution of tannic acid, in proportion of a scruple to a drachm in six ounces of water, better than any other local astringent. Ice finely powdered and put into a bladder, may be applied to the sacral and anal regions. The dilute sulphuric acid in infusion of roses, or acetate of lead with opium, the balsams and terebinthinates may be prescribed to be taken internally.

Some authors have suggested the application of cupping-glasses to the upper parts of the body, and sinapisms and ligatures to the upper extremities ; others have recommended bleeding from the arm, but I think few surgeons will be inclined to adopt the latter recommendation, in a patient already reduced by the hæmorrhoidal flux. In extreme cases the actual cautery, also plugging the rectum, has been advised, but neither of these means is often practicable, unless the point from whence the blood flows can be brought into view, and then, by ligature

or other means, we shall be able to succeed in stopping the bleeding. When the hæmorrhage is of a passive character, occurring continuously, and weakening the patient by slow degrees, the administration of the preparations of cinchona, in combination with the mineral acids, will be of service; sulphate of quinine and sulphuric acid, and the various chalybeate preparations, may also be administered.

The discharge of mucus from the bowel, which so generally accompanies internal hæmorrhoids, and is a cause of extreme annoyance to the patient, is to be arrested by the injection of cold water into the rectum morning and evening. But if the disease has existed long, and the secretion is profuse, a few grains of sulphate of zinc, acetate of lead, or tannic acid, may be added to the water.

Tumours occurring at the verge of the anus, forming external hæmorrhoids require different treatment from those which are internal to the sphincter. In the acute stage of external piles, when they are small, hot fomentations, poultices, and the medical treatment already advised, will generally succeed in relieving the symptoms, but if they be large and tense, much time and pain will be saved to the patient by making a free incision through them, and thus evacuating the contained blood. The incision should be made with a small curved bistoury in the

direction from the circumference towards the centre of the anus, immediate relief will follow, and the very slight bleeding that takes place, which is rather beneficial than otherwise, is never sufficient to cause either the patient or surgeon any anxiety; the wound will heal by granulation, the skin contracts, and the parts are restored to their normal condition in a few days. But if this proceeding be neglected, permanent tumours will be formed in the manner previously described.

When these exist, they should be excised, and it is the only advisable plan of treatment; if the error be committed of applying ligatures to these as to internal piles, intense suffering will result, a striking example of which I witnessed in a case some little time since. The usual mode of excision is by means of a pair of curved scissors; the pile, being seized with a vulsellum or pair of forceps, is to be cut off with the scissors, the incisions radiating from the circumference towards the centre of the anus. Care should be taken not to remove more of the integument than covers the tumour, or, upon cicatrization of the wounds, contraction of the anus will ensue. A less painful mode of removing these tumours is by a probe-pointed straight bistoury; when the tumours are large and much indurated, they slip before the edge of the scissors, rendering a

second or third cut necessary; besides, a certain amount of bruising of the tissues occurs in this manner of operating, and occasions great pain unless the patient is under the influence of chloroform. In using the knife, the incisions can be made with a greater degree of exactness; each tumour is to be held with the forceps and incised at its base, the lower half of the incision being made first, that the blood may not interfere with our view. If the hæmorrhoid be small it can be cut off with one stroke of the knife, but if large the preceding plan is the better, as removing more of the integument than is necessary can be thus avoided. Should fissure of the anus coexist, it will generally heal after the removal of the tumours; slightly stimulating lotions and ointments will sometimes be advisable till the cure is complete.

In the majority of cases it will not be necessary to interfere surgically with internal piles, if the treatment already described, be steadily pursued, and the patient strictly attends to the injunctions of his medical adviser with respect to diet and exercise. Even when the tumours are large, and have existed for some time, the use of soap and water externally, night and morning, the injection of cold water or lime water after each dejection, and keeping the bowels easy, will enable the subjects of them to pass their

lives in tolerable comfort. But when, notwithstanding the adoption of these means, the tumours continue affected with pain, wearing out the strength of the patient, or bleeding occurs to such an extent as to affect the constitution, producing the various symptoms that have been described, or that the tumours are constantly protruded, and a profuse mucous discharge kept up, it will be advisable to remove them by surgical operation. I may be permitted to repeat that it is only when the constitution suffers from the local disease we are to remove it; and we must be careful not to do so when that disease appears beneficial in warding off those of more important organs of the chest, head, and abdomen, which, if aggravated might terminate fatally.

If after a minute and careful inquiry as to the existence of any hereditary predisposition in the patient to other disease, and as to his previous state of health, also his freedom from disease of the head, of the thoracic and abdominal viscera, and after a mature consideration of the whole circumstance of the case, the propriety of an operation shall be determined on, the next question that will engage the attention, is the best mode of proceeding. Formerly great difference of opinion existed regarding the plan to be adopted, many eminent surgeons advocating excision, while others used the ligature; one reason for this

want of agreement among those who have written on the subject, depends much upon their not having drawn a distinction between internal and external piles, but applied a general rule to the treatment of both kinds. It is now, however, generally admitted that excision is applicable only to external tumours, while the ligature, and, in some cases, the use of nitric acid, are preferable in the removal of internal hæmorrhoids. That the operation of excision itself is more rapidly performed than the application of a ligature cannot be denied, but when we take into account the frequency of hæmorrhage, and the necessity of applying ligatures to the bleeding vessels, of making pressure, or of searing the wounded surfaces with red hot irons, as practised by Dupuytren, there cannot be a question that the patient escapes on more easy terms, and even more quickly when the ligature is used. The opponents of the ligature have imagined various evil consequences as following its application, such as phlebitis, diffuse inflammation of the cellular tissue of the pelvis, peritonitis, and tetanus; and have added instances where the application of ligatures was followed by fatal results; but they neither verified their surmises as to the cause of death by post-mortem examination, nor have they shown that the cases were such as justified surgical interference.

Several surgeons of eminence at one time had re-

course to excision, but were led to abandon the plan by fatal effects following it. Sir Astley Cooper* says, "For excision, in the early part of my surgical career, I was a strong advocate; for I found it a less painful operation than ligature, and it appeared to me not dangerous; but as my experience increased, I was induced to change my opinion, and to consider excision as not divested of danger." Sir Astley then records three fatal cases, the first the wife of a surgeon, the second a gentleman from Guernsey, and the third the Earl of S——. Sir Benjamin Brodie† remarks, "With respect to internal piles, then, there is no objection to the ligature, while there is the greatest objection to their simple excision. This is the doctrine which I was taught by Sir Everard Home in this hospital when I was a student. But I met with a copy of Mr. Cline's 'Lectures on Surgery,' in which he stated he removed internal piles by excision; and this observation was added, 'A timid surgeon removes them by ligature.' Knowing Mr. Cline to be a very cautious practitioner, I thought in what he recommended there could be no kind of

* "The Lectures of Sir Astley Cooper, Bart., on the Principles and Practice of Surgery, with additional Notes and Cases," by Frederick Tyrrel. 1825. P. 342.

† "Lectures on Diseases of the Rectum," by Sir B. C. Brodie. Medical Gazette, vol. xv. page 843.

danger, and for some time, therefore, I was led to follow his suggestion. In the first one or two cases I found no inconvenience to arise from my altered practice; but then a case occurred in which the patient lost a great deal of blood; in another case, the hæmorrhage was so great that the patient nearly died; and then a third case occurred, in which also the patient lost an enormous quantity of blood, so much, that I now only wonder that he did not actually die. Since then I have never removed large internal piles except by ligature." Mr. Syme,* after referring to Sir Astley Cooper's cases, adds, "If other practitioners had been equally candid, we should doubtless have had more testimony as to the danger of this operation; and every surgeon who has practised it must have experienced more or less alarm. Before my own views were settled as to the best means of treating the disease, I, on one occasion, cut away an internal hæmorrhoid, which was partially protruded, and I found it necessary to employ manual pressure for several hours to restrain the bleeding that followed. In another case I succeeded in securing the vessels by ligature." Dr. Bushe† also enters his protest against the excision

* "On Diseases of the Rectum," by James Syme, F.R.S.E., Professor of Clinical Surgery at the University of Edinburgh. Second Edition, 1846. Page 60.

† Op. cit. page 183.

of internal piles, in the following words :—" I have performed the operation several times, and, after it, have had to tie up arteries, plug the rectum, and in one instance to apply the actual cautery. Indeed, I so nearly lost two patients, that when left to my own choice I no longer have recourse to this operation."

Although, from what has been stated, it is quite evident excision of internal hæmorrhoids is neither safer or advisable, yet if, by any reason, that plan of operation should be preferred, it is to be performed in the following manner :—The bowels having been unloaded by the administration of mild purgatives, an enema of thin gruel should be administered some little time previous to the operation, in order to make the tumours protrude at the anus, or the patient may be desired to sit over hot water in a close stool, and strain till they are prolapsed. He should then lean across a table opposite a good light, or he may lie on a couch or bed, with the nates projecting over the edge, and his knees drawn up towards his chin ; the buttocks are to be separated by an assistant, and the surgeon, grasping the pile in the blades of a vulsellum or pair of forceps with the one hand, excises it with a pair of curved scissors held in the other ; the tumours are thus one by one to be cut off, taking care not to remove any of the mucous membrane that is uninvolved in the affection. Should

bleeding be profuse, pressure by means of the finger should be made, and the patient be desired to contract the sphincter. If, after a short time, hæmorrhage has not been arrested, the rectum must be dilated by the speculum ani, and an attempt made to secure the bleeding point with the ligature ; if this cannot be accomplished, Dupuytren's method of applying the actual cautery to the part may be necessary. So frequently did this surgeon find it requisite to have recourse to such means of arresting bleeding, that he had irons of various shapes and sizes for the purpose. Elevating the pelvis, and applying bladders, containing pounded ice and salt, to the sacrum and anus, will assist the other means employed. Plugging the rectum in the ordinary manner is very objectionable, as bleeding may continue internally, unobserved by the attendants, till the patient is exhausted. If it be deemed advisable to have recourse to compression, it is best made by an oval-shaped bladder of India-rubber, which can be inflated by means of an elastic tube connected therewith. Bushe invented an instrument for arresting bleeding from the wound made in lithotomy, and recommends it in cases of hæmorrhage from the rectum following the excision of piles ; it consists of a tube closed at one end, the other being open and furnished with a stop cock : the sides of the tube are

perforated with holes, and a portion of intestine surrounds it, which is secured at each end by waxed thread. The instrument being introduced into the bowel, the intestine is inflated through the tube, and the air retained by turning the stop-cock. After the operation a dose of opium should be administered, with the object of tranquillizing the system, and of preventing the action of the bowels for two or three days. At the expiration of that time a dose of castor oil must be given, and the bowels afterwards kept open by repeating it as often as occasion requires, or the lenitive electuary or other aperient may be substituted. Emollient enemata during the treatment are very essential, and will be productive of much benefit and comfort.

When hæmorrhoidal tumours are large, and the symptoms and distress they occasion are not mitigated by constitutional treatment, recourse must be had to surgical means, and the only operation that is advisable is the application of the ligature, which, if properly applied, occasions but little pain, and does not occupy more than a few minutes. It is premised that the general health has been attended to, and the bowels thoroughly unloaded before the operation is undertaken : measures that are highly important to a successful issue.

Some surgeons include the pile in a single noose,

but it is unadvisable, for, unless its connexion is by a very narrow peduncle the ligature cannot be drawn sufficiently tight to effectually cut off all vascular and nervous connexion, and thereby the parts are longer in separating. Mr. Mayo* mentions a case in which he operated, and included some large tumours in single ligatures which had not the effect of completely strangulating the parts, and he was obliged to apply others after a few days, a proceeding that must of necessity have been very painful from the inflamed condition of the piles at that time. But another important objection is the liability of the ligature to slip off; this occurred in several cases recorded by Mr. Howship,† and, although the disease was ultimately removed by the excessive inflammation set up, it was at the cost of much suffering to the patient. To obviate these objections, it is better always to pass a double ligature through the base of the tumour, and to tie it in two portions. For this purpose an ordinary curved suture needle will suffice, but a needle like those used in operating on nævi will be the more convenient; it should be somewhat more curved, but similar in every other respect. Dr.

* Op. cit. page 70.

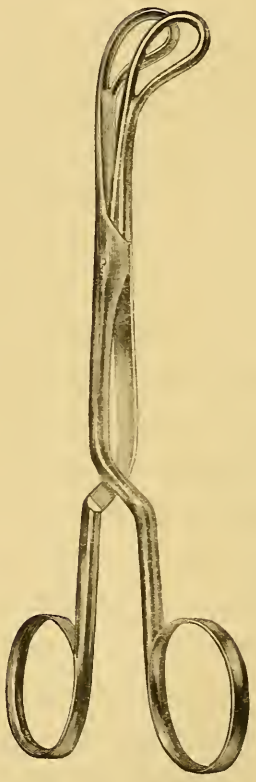
† "Practical Observations on the Symptoms, Discrimination, and Treatment of some of the most important Diseases of the Lower Intestines and Anus."

Bushe* invented an instrument which is very useful in some cases, particularly when the surgeon has not efficient assistance. The annexed wood-cut accurately represents the form of the instrument, which is eight inches in length; the needles fitting into the needle-receiver varying from half an inch to an inch. The following is the manner of using it:—The needle being armed with a double ligature is made to transfix the tumour through its centre; it is then to be grasped by a pair of forceps, and withdrawn from the socket of the holder. All this can be accomplished without entangling the needle in the surrounding parts; because, the convex portion of the needle-carrier being alone opposed to the prolapsed parts, it pushes them out of the way without injury, and thus makes room for the ascent of the needle, so that one can see precisely where to enter its point.

* Op. cit. pp. 188, 189.

The ligature should be strong dentist's silk, or, what is preferable, an even and fine hempen cord ; whichever is used must be well waxed, that it may not be acted on by moisture, and that the knot may not slip. The length should be about twenty inches ; it is also a good plan to have one half stained, whereby we can distinguish the ligatures after their division.

The patient is to be placed in the same position as for excision, and the tumours made to protrude by the means previously directed.* The buttocks are then to be held apart, and one of the hæmorrhoids being taken hold of with a vulsellum or the forceps represented in the annexed figure, and committed to the hands of an assistant, the surgeon passes the needle armed with a double ligature through the centre of its base ; the ligature is then divided, and the needle



* Page 136.

withdrawn. He next proceeds to tie them. Sir Astley Cooper recommends that they should not be drawn tight, thinking thereby to lessen the pain and irritation, but he erred in his supposition, and produced that which he was desirous of avoiding. When parts have their nervous and vascular connexion completely interrupted, their vitality at once ceases, and nature throws them off as speedily as possible ; this being the object of the operation, it is desirable to draw the ligatures perfectly close. The upper one is to be tied first and then the lower one ; the extent of the tissue to be included, is to be regulated by fixing the limits with a tenaculum, or by the use of a pair of forceps. With the same object it has been proposed to transfix the piles with various kind of pins, which are withdrawn after the ligatures are tied ; the proceeding has no merit in it and is never necessary. Care should be taken not to include in the ligature any of the mucous tissue that is unaffected, it is still more essential to exclude the skin at the margin of the anus, or great suffering will be induced. It is seldom there are more than three or four tumours, and these must be operated on at the same time, otherwise the irritation produced by the ligature of one of the hæmorrhoids, will cause inflammation to attack the tissue of the others, which, from being in a morbid condition, is rendered

more liable to it than the healthy structures. After the knots have been made fast, the ends of the ligatures must be cut off half an inch from them; and the parts returned within the anus. Some have advised that the piles should be clipped off near the ligatures, but there is no necessity for it, they soon become flaccid and shrink, besides to do so would endanger the ligatures retaining their hold.

The ligatures generally separate from the sixth to the tenth day, no advantage is to be gained by pulling at them or interfering with them in any way, they are sure to be thrown off in proper time. I have known instances of their being pulled off prematurely to the manifest disadvantage of the patient; it must be recollected, they are placed under different circumstances to ligatures attached at the bottom of deep wounds, as in amputations of limbs and in other great operations; in such cases gently twisting them occasionally is advisable, if they have not become loose at the usual time for their separation.

At different periods, various escharotics have been extolled, and become a fashion in the treatment of hæmorrhoids; but, as in many cases they did not realize the advantages that the advocates of them would induce others to believe, they fell into disuse; indeed, there are but two escharotics, the strong

nitric acid and the deuto-nitrate of mercury that prove beneficial, and these only in certain cases. I have seen cases recently, in which the nitrate of silver and the sulphate of copper have been applied, but these salts are not of the slightest service in removing the morbid tissues, though they may palliate the symptoms when not severe. Dr. Houston* advocates the use of pure nitric acid for the cure of certain forms of hæmorrhoidal disease. I have found it very effective, and when the tumours are sessile, with florid granular surfaces, looking like half a strawberry, the application of it is the preferable plan of treatment; but if the piles are large and pendulous, the ligature ought to be used. Several instances have come under my observation where mischief has arisen by attempting to destroy large growths with the acid; within the last eighteen months I have seen three cases of communication having been formed between the rectum and vagina, by its too free application.

When the part of the mucous membrane morbidly affected is of limited extent, and does not rise much above the surrounding healthy surface, the acid may be applied with safety and advantage. The disease is to be brought into view, either by dilatation of the anus, or by being made to protrude externally, and the acid

* "Dublin Journal," vol. xxiii. p. 94.

applied ; the effect must be judged of, by the change in appearance of the tissue, which will lose its natural colour and become of a grayish-white. An alkali in solution is to be used to neutralize the excess of acid, and prevent its action on adjoining structures ; the parts then being smeared with oil, the operation is finished. A small piece of lint wound round the end of an eye-probe, is a convenient mode of applying the acid. Dr. Houston directs a piece of wood shaped like a spatula to be used, but a probe and lint are always at hand, and answer best. The pain occasioned by the operation is not great, but care must be taken that the acid is not permitted to come in contact with the skin at the margin of the anus, or the converse will occur. The eschar produced by the acid will separate between the third and sixth day, leaving a healthy ulcer ; at this time the patient will experience some smarting when the bowels act.

When external piles exist with internal ones, they must be excised at the same time that the others are operated on, or they will become inflamed by the irritation which necessarily follows, and occasion extreme pain and annoyance. But it is highly essential that a correct diagnosis be made between external piles and the œdematous swelling of the margin of the

anus, induced by the condition of the internal piles; for if an error is made, and the œdematous integument removed, contraction of the anus will ensue on the cicatrization of the wounds.

Whether excision, ligature, or the application of nitric acid be had recourse to, a dose of opium should be administered after the operation, and in this there is a double intention to be answered, the one to tranquillize the system and allay pain, the other and the chief one, is to lock up the bowels for a day or two, to prevent the irritation that would be produced by their action. On the third day, if the bowels are not moved of their own accord, an emollient lavement must be administered, this should be repeated on the fourth or fifth day; afterwards the bowels must be kept open by castor oil, lenitive electuary, infusion of senna with decoction of cinchona or similar remedies.

For the first few days the patient must be confined to his bed; on the third day, according to circumstances, he may be allowed to leave his room, and lie on a sofa; about the fifth day he may begin to move about, and, if the weather permit, he may take a gentle walk or a drive in a carriage.

The diet for three or four days must consist of sago, arrowroot, barley-water, beef-tea, mutton, veal,

or chicken broth; when the patient begins to walk about, some solid food may be allowed, but great moderation must be observed.

When the ligatures have come away, or the eschar produced by the action of the acid separates, leaving an ulcerated surface, the injection of four or six ounces of water, with two grains of sulphate of zinc to the ounce, will expedite its healing.

Occasionally it happens on the second or third days following the operation, that the patient experiences some difficulty in micturating; a dose of hyoscyamus, with nitric ether, in camphor mixture, and a hot hip-bath, will generally remove these symptoms; should these means, however, not succeed, and retention of urine supervene, it will be necessary to introduce the catheter; but we shall seldom be called upon to do so; nevertheless the bladder must not be allowed at any time to become over distended.

In the treatment of ulceration of piles, it will generally be advisable to remove them; if they are external, they must be excised; if internal, the ligature must be employed.

When fissure of the anus exists as a complication, it will usually be found accompanying the external form of hæmorrhoids. The tumours must be excised, and a mild astringent ointment, with or without the

extract of belladonna, applied according as there is spasm of the sphincter muscle or not. If this be insufficient to heal them, it will be necessary to have recourse to the operation described in Chapter V.

If abscess take place in connexion with piles, an early and free incision must be made, otherwise fistula in ano may result.

The protrusion of large internal piles from the anus causes the patient great annoyance, and at times is alone sufficient to induce him to seek surgical aid. At first the protrusion only takes places at stool, but in the progress of the disease, the sphincter becomes relaxed and the anus dilated, so that they fall down when the patient makes the slightest exertion, or even on his assuming the erect posture. If no contra-indication exists, the removal of the tumour or tumours is the best treatment, but if this is not admissible, six or eight ounces of cold water must be thrown up the bowel twice or thrice a day; various astringents may be added to the fluid, such as sulphate of zinc, alum, acetate of lead, tannic acid, &c.

Surgical mechanicians have invented various instruments for the prevention or cure of piles, but they succeed in accomplishing neither; however, their contrivances are often useful in assisting to prevent the protrusion, and the discomfort arising therefrom, when it is unadvisable to remove them

by operation. The instrument made by Mr. Eagland is perhaps the best of the kind; but when a truss cannot be obtained, a pad of lint, and a T bandage, will answer the purpose.

It has been recommended to make temporary pressure on internal piles, by the introduction of a bougie into the rectum, and retaining it there for an hour or longer every day; but whenever success has appeared to follow the proceeding, it has been due to the constitutional treatment that has been adopted at the same time, and not to the use of the instrument. Those who advocate this plan, entertain the idea that internal piles are dilated veins, and that as pressure is beneficial in dilatation of the veins of the leg, it must also be beneficial in these cases; forgetting that the rectum is surrounded by yielding parts, and therefore the impossibility of making firm and equable pressure; they also overlook the fact that in the varicose condition of the veins of the leg pressure is only useful so long as it is continuously applied, and that in many cases the bandages have to be put on with great nicety to afford the desired relief, and, even after this has been pursued for years, the veins remain in the same dilated condition, and all the miseries attending them return if the bandages are left off only for a few hours.

When the patient begins to regain health and

strength, he must avoid all the causes that induce the disease from which he suffered. He must live sparingly, and be careful to keep the bowels regular; he must take as much exercise, short of fatigue, as he can, so that the skin and other excretory organs may fully perform their functions and prevent plethora. If these means are insufficient, or, if by neglect of the advice given him, and returning to former habits of indulgence, he is threatened with congestion of any of the organs in the head, chest, or abdomen, the feet should be immersed every night in hot water and mustard, and the bowels should be freely acted on; a dose of calomel and jalap will be the best to commence with, afterwards a few grains of blue pill, or gray powder, with a grain of ipecacuanha, may be taken at bed-time, and a purgative draught in the morning, as the compound infusion of senna, with decoction of cinchona, or potassio-tartrate of soda in infusion of columba. Blood may be taken by cupping from the region of the organ threatened, or from the sacrum and perinæum.

With regard to the use of chloroform in operations on hæmorrhoidal tumours, much must depend on the patient's own wishes on the subject; I should never recommend it except in removing external piles that have become permanent, the pain attending their excision being very sharp for the time. Applying

the ligature or the nitric acid to internal hæmorrhoids does not usually cause more pain than the patient can very readily bear, unless the nervous system be very excitable, or he is peculiarly obnoxious to pain. Besides the surgeon requires his co-operation to prolapse the tumours, and to prevent their retraction while he is performing the operation. However, if the wish to inhale it is expressed, I should never think of offering any strenous opposition, unless there were reasons rendering it improper and dangerous.

The following cases will illustrate the different phases of hæmorrhoidal affections and the treatment.

External hæmorrhoid.

Mr. ——, tall and stout, generally takes moderate exercise, and lives temperately. Some years since suffered from fistula in ano, and was operated on by Mr. Copeland; an external pile was removed at the same time. He consulted me on the 5th of May, 1853, fearing his former malady was returning; for several weeks he had not taken his usual exercise, and had lived rather more highly; the last few days of April he had experienced itching and fulness of the rectum, and ultimately a lump formed; he then sought my advice. On making an examination I perceived an external pile on the left side; it was tense, of purple colour, and but very slightly painful; no internal hæmorrhoids existed. His tongue was slightly furred and large, face somewhat flushed, conjunctivæ congested, pulse full.

℞ Hydrargyri cum Cretâ gr. iij.
Extracti Taraxaci gr. vij.
Fiant pil. ij. omni nocte sumendæ.

℞ Infusi Gentianæ comp. ʒiv.
Infusi Sennæ comp. ʒj.
Potassæ Sulphatis ℈iss.
Fiat haust. secunda quaque mane sumendus.

The anus to be washed with water and yellow soap night and morning.

All inconvenience subsided on the second day after I first saw him, the tumour was flaccid and was contracting. The pills and draught were continued for a few days longer; he still uses ablutions twice a day, and has had not the slighest symptom of any affection of the rectum since.

External hæmorrhoid.

W. C——, æt. thirty-seven, a saddler; an out-patient at University College Hospital, in the summer, 1845; of ordinary stature and conformation, bilious temperament, works hard at his business, sitting ten hours a day; lives well, and in the habit of drinking freely of beer and spirits, but is seldom tipsy. Several days before applying at the hospital he experienced slight itching and fulness at the anus; on the evening previously the symptoms increased; he then had throbbing and acute pain, became thirsty and feverish, and had not been able to sleep during the night. In the morning he was sensible of a tumour having formed at the margin of the anus. When he applied for advice his

tongue was furred, skin hot, and his countenance indicated pain and want of rest. His bowels had been irregular, sometimes not acting for two or three days. On examination, an external pile presented; it was purple, tense, and very painful. Ordered to take four grains of blue pill, and one grain of ipecacuanha immediately, and the following draught two hours afterwards:—

℞ Pulveris Rhei gr. xv.
Pulveris Jalapæ gr. viij.
Potassæ Sulphatis ʒss.
Tincturæ Cardamomi comp. ʒj.
Aquæ Cinnamomi ʒxj.
Misce fiat haustus.

To foment the parts with hot water and to go to bed.

The medicine having acted freely, on the following morning I divided the pile with a bistoury and evacuated the contained blood; the fomentations to be continued. On the second day he resumed his business, the incision healed, and the skin contracted to its normal condition. He afterwards took for two or three weeks a tonic and aperient mixture, and by my advice abstained from spirits, and drank but a moderate quantity of beer daily.

The brother of this patient had previously been under my care for fissure of the anus.

External hæmorrhoid.

A. B., æt. thirty; tall; of great muscular development, plethoric habit, not accustomed to take much exercise except occasionally during the sporting season, and is capable of great exertion and endurance without fatigue.

He lives freely, his general health is good; occasionally feels a fulness of the head and drowsiness; he then has recourse to a brisk purgative, which relieves him.

He sent for me in May, 1852; he was in bed complaining of great pain at the anus; his countenance was flushed, skin hot, tongue furred, pulse accelerated, and he had headache. He informed me he had been to a succession of dinner parties, and had eaten and drunk freely, and had not felt quite well for several days; the morning before my seeing him he experienced an itching at the anus and a fulness about that region; towards evening his discomfort increased, and he began to experience throbbing and acute pain; he went to bed somewhat earlier, hoping a night's rest would relieve him. On making an examination I perceived an external pile, half an inch in diameter, spheroidal, tense, of a deep purple colour, and very painful when touched. To use hot fomentations and to continue in bed; five grains of calomel and five grains of Dover's powder to be taken immediately, and the following draught two hours afterwards:—

℞ Infusi Sennæ comp. ʒxj.
Pulveris Jalapæ gr. viij.
Sodæ Potassio-tart. ʒj.
Spiritus Myristicæ ʒj.
Misce fiat haustus.

The medicines acted on the bowels freely several times. On visiting him in the evening, finding the pile still tense, I divided it by transfixing the base with a small curved bistoury and cutting outward. The next day he was able to be about; the wound healed without any trouble in a

day or two after. I advised him to observe moderation in living, and prescribed the following draught to be taken every morning for two or three weeks.

℞ Infusi Gentianæ comp. ʒxj.
Magnesiæ Sulph ʒj.
Acidi Sulphurici dil. ♏xii.
Tincturæ Aurantii ʒj.
Misce fiat haustus.

External hæmorrhoid and fissure of the anus.

Mr. ——, æt. twenty-eight, residing in Westbourne Terrace, Hyde Park, was advised to consult me by my friend, Dr. Quain. He is of ordinary stature and conformation, living moderately, not taking much exercise, has always been dyspeptic and of costive habits; the last few years he has suffered more or less from smarting during defecation, attended with slight hæmorrhage, followed by aching pain.

The attack for which I was consulted commenced the day previously with severe throbbing, pain, and great tenderness at the anus, on making an examination, an external pile, the size of a filbert, on the margin of the anus of the left side presented; it was tense, exquisitely painful to the touch, and of a deep purple colour. At the posterior part and immediately within the margin of the anus was a fissure about half an inch in length, appearing of recent origin, the margins being sharp and florid; the sphincter ani was slightly affected with spasm; general constitutional disturbance was indicated by thirst, loss of appetite, furred tongue, acceleration of the pulse, and by the preternatural

heat and dryness of the skin. He was directed to observe the recumbent position, to foment the anus with a hot decoction of poppy-heads, to apply a piece of lint smeared with extract of conium and spermaceti ointment to the fissure, and to take at bed-time a teaspoonful of an electuary consisting of confection of senna, sulphur, jalap, bitartrate of potash, copaiba, and syrup of tolu.

On the following morning the bowels were freely moved, attended with smarting at the time. The tumour was still tense and painful, I therefore divided it and turned out a clot of blood; bleeding to the amount of one or two drachms followed. Directed to use a sponge and water when visiting the closet instead of paper.

The electuary and ointment were continued for a short time, and in two days all disease had subsided; the loose skin resulting from the distended hæmorrhoid contracted entirely, the part resumed its natural condition, and the fissure of the anus had quite healed.

Dr. Quain informs me he has seen this patient recently (Dec. 1853), and that he has continued free from all symptoms of fissure or piles.

External piles after bilious fever.

C. C., æt. twenty-three, convalescent, after several weeks' severe illness from bilious fever. On one of my visits he complained of great pain and throbbing at the anus, and fulness of the perinæum. An examination revealed a large external pile of the size of a cherry, on the left margin of the anus; it was of a deep purple hue, tense, and very

painful. Under the idea of regaining his strength more rapidly, he had for several days eaten very heartily, and taken several glasses of wine, notwithstanding he had been admonished to observe moderation in living. Ordered to confine himself to the recumbent position; to have no solid food; to use hot fomentations of decoction of poppy-heads to the anal region, and to take a teaspoonful of the following electuary at bed-time:—

℞ Confectionis Sennæ
Sulphuris Loti
Extracti Taraxaci aa ʒj.
Potassæ Bitart. ʒiv.
Syrupi Zingiberis q. s.
Misce fiat electuarium.

The next day he was no better; he had not been able to take the electuary, as his stomach turned against it; he was desired to form it into boluses of convenient size with wafer-paper. I proposed dividing the pile with a bistoury, but he would not listen to anything like an operation.

By the means suggested he managed to take the electuary, and it acted freely the following morning; the pile was still tense, but not so painful; three others, of small size, had formed on the opposite side. He was directed to continue the electuary and fomentations, and to live sparingly. Under the treatment he continued to improve, but a fortnight elapsed before he was free from pain, the pile had then collapsed, leaving a large fold of loose skin. At this time he became very nervous about himself, was

restless at night, and perspired profusely. Ordered to take twice a day the following:—

℞ Infusi Cinchonæ ℥iss.
Acidi Nitrici diluti ♏x.
Syrupi Aurantii ℥j.
Fiat haustus.

In another week he was much better, and gaining strength; he left town for Brighton, where he remained for some time.

I have seen this gentleman lately; he is now stout and in good health; the loose fold of skin around the anus still exists, and may probably become the seat of disease on the occurrence of a slight exciting cause. Had he consented to the small incision requisite, I have no hesitation in saying his sufferings would have been materially less, and of shorter duration.

External piles, with ulceration of their surfaces and fissure of the anus.

T. R., æt. twenty-eight, by occupation a copying-clerk, in a law-stationer's office, of ordinary stature and conformation, bilious temperament. Previous to fourteen years of age he suffered from hæmaturia; since then he has enjoyed good health till the early part of 1852, when he experienced itching and fulness at the anus, and after a few weeks, smarting at stool was superadded. His bowels have been habitually constipated, and, from the nature of his occupation, he maintains the sitting position many

hours during the day, and takes very little exercise. In June he became a patient in a metropolitan hospital: he described his symptoms, and was told he had piles: no examination was made during the two months he was there: medicines were prescribed, and he left somewhat better.

On the 11th of November, 1852, he applied at the Blenheim Dispensary, complaining of smarting at stool, followed by severe aching, which continued for some time; his sufferings were so great that he was rendered incapable of following his employment. His countenance was anxious, his pulse quick and irritable, and he was exceedingly nervous and apprehensive; his tongue was furred and large, with the impressions of the teeth deeply notched in the margin: he had tenderness at the epigastrium, and flatulence. On making an examination several external piles were seen, varying in size from a large pea to that of a bean: their surfaces were ulcerated, they were hard and tense, and fissures existed between them. On attempting to ascertain the extent of the latter internally, the introduction of the finger into the rectum brought on violent spasm of the sphincter, and induced intense pain. It was proposed he should have the tumours around the anus removed, to which he assented, but postponed the operation for a short time on account of some private affairs demanding his attention. He was directed to wash the anus with soap and water morning and evening, and to use a sponge and water at the closet after evacuating the contents of the bowels. A teaspoonful of an aperient electuary was ordered to be taken at bed-time, and two table-

spoonfuls of compound infusion of gentian with ammonia and bicarbonate of potash twice a day.

Nov. 28.—Had seen my patient several times since he first applied to me: his general health was now much improved, and he has experienced relief by following the treatment suggested. This day I removed six external piles, making the incisions converge from the circumference towards the centre of the anus. My colleague, Mr. Thompson, kindly rendered me assistance, and administered chloroform to the patient. About two ounces of blood were lost during the operation; no vessels required ligature, and the slight oozing that followed was easily restrained by a pad of lint and a T bandage. Before leaving he had recovered from the effects of the chloroform, and became aware of the operation having been performed by feeling slight smarting. To remain in bed.

Nov. 29.—Visited him in the afternoon. Half an hour after I had left him he had lost all pain, and he has been quite comfortable since; his bowels not having been moved, he was directed to take a dose of the confection which had been previously prescribed, and to apply a piece of lint spread with zinc ointment to the wounded parts.

In ten days the wounds had quite healed, also the fissures that existed between the piles; for a short time he took an aperient and tonic mixture. He regained his health, his bowels act regularly, and he has continued perfectly well since.

The severe sufferings this patient endured might have been spared him had an examination been made when he

applied at the hospital, as a less routine plan of practice would probably have been adopted, and the disease cured in the first instance.

Internal hæmorrhoidal tumours in an early stage.

J. S., æt. nineteen; a shoemaker; came under my care at the Blenheim Dispensary last year, affected with syphilitic lepra, for which a solution of bichloride of mercury and arsenic was ordered, and he progressed favourably.

On the 8th of March, 1853, he complained of having experienced for three or four days pain, weight, and throbbing, in the rectum, increased at stool, and attended with the discharge of a small quantity of blood. For several weeks his bowels have been constipated, and he has sat at work from an early hour in the morning till late at night. His eyes are dull, the sclerotic conjunctivæ slightly tinged yellow, tongue furred, and the teeth indented into the edges, pulse quicker than natural, skin hot and dry. Examining the rectum, the mucous membrane was observed to be congested, and several small purple lumps were seen immediately within the margin of the anus. I prescribed five grains of gray powder and a drop of croton oil, to be made into a pill, to be taken at bed-time. To use ablutions of soap and water after each stool.

March 10.—The pill acted freely. Has less uneasiness this morning. To take three grains of blue pill and two of extract of conium every second night, and the following draught every morning—compound infusion of gentian, half an ounce; compound infusion of senna, one

ounce; potassio-tartrate of soda, a drachm and a half. To continue the enemata and ablutions.

March 22.—He has continued the remedies; all the symptoms have subsided, and his general health has greatly improved. To omit the pill; to take a draught twice a week, and to continue the use of soap and water.

April 5.—Has had no return of the hæmorrhoidal affection, the mucous membrane of the bowel perfectly healthy in appearance.

Congestion of the mucous membrane of the rectum, attended with great pain.

A. S., æt. thirty-two; a carver, of ordinary stature and conformation, bilious temperament. Some years since he suffered from irregularity of the bowels, and latterly has been very costive. In the early part of Nov. 1852, he experienced great pain at stool, also aching, and extreme discomfort at the fundament while at work; this was sometimes so severe as to compel him to go home. Slight bleeding from time to time has taken place.

He applied at the Blenheim Dispensary, Dec. 7, 1852, complaining of great pain at the fundament. On examination and separating the margins of the anus, the mucous membrane was observed to be congested, and the hæmorrhoidal veins turgid. Digital examination revealed no distinct tumours. The speculum ani showed the whole mucous membrane within the limits of the internal sphincter in the same condition as at the margin of the anus. His tongue was coated and notched, the countenance heavy and anxious, pulse more frequent than natural, his bowels had

not been moved the last two days. Five grains of gray powder and one drop of croton oil, to be taken every night. To wash the anus night and morning with yellow soap and water, and to use half a pint of cold water as an enema after each dejection.

He took the pill prescribed on the three following nights, the bowels were freely acted on, and he felt much less fulness and aching in the rectum. Ordered to omit the pill, and to take a teaspoonful of a laxative confection every night; to continue the ablutions; and to use the enemata of cold water.

In three weeks he was free from all disease, and by having recourse to the electuary occasionally, if the bowels are at all confined, he has since continued perfectly well.

Internal hæmorrhoids.

The Rev. ——, æt. sixty-five, residing in Surrey, of moderate stature and healthy appearance, for some years has had at times hæmorrhage from the rectum when the bowels were evacuated, preceded by a sense of fulness and discomfort in the part. The symptoms have always been aggravated on his visits to town, when he is induced to enter into society, and live rather more freely than he is generally accustomed to. By examination, I detected a small internal hæmorrhoidal tumour, the mucous membrane was congested, and two loose folds of integument existed on the right margin of the anus, the remains of external piles. He was ordered to take the following electuary:—

℞ Confectionis Sennæ ʒj
Sulphuris Loti ʒv.
Extracti Taraxaci ʒiv.
Syrupi Tolutani q. s.

Fiat Electuarium. A teaspoonful to be taken at bed-time.

Eight ounces of cold water to be injected into the rectum after each dejection.

By taking the electuary occasionally, continuing the enemata of cold water, and avoiding living too highly, he has been free from hæmorrhage and pain.

External and internal piles; considerable bleeding, palpitation of the heart, &c.

A. A., æt. fifty-six; married, of moderate stature, very stout. Applied at the Blenheim Dispensary, Oct. 2, 1852, in consequence of considerable losses of blood per annum when at stool. She appears exsanguinated, her lips, gums, and tongue are colourless; the countenance is anxious and sallow, pulse quick, weak, and irritable, and she complains of violent palpitation of the heart, induced by slight exertion; she has long been of constipated habit of body, and has not taken much exercise for several years.

The present attack commenced by itching of the anus, followed by a feeling of fulness, throbbing, and acute pain, the latter extending up the sacrum and down the inside of the thighs. Hæmorrhage took place, and after it had occurred a few times the feeling of fulness and pain became much less. On making an examination, the margin of the anus was observed surrounded by external piles

in a state of semi-distension; digital examination of the bowel demonstrated an internal pile on the right side, the size of a cherry, and having a broad base. I directed her to return home and to confine herself to the recumbent position. To have an enema of a pint of thin gruel, thrown up the bowel at once, and to take, at bed-time, a teaspoonful of an electuary containing copaiba.

Oct. 3.—The enema brought away a quantity of indurated fæces. The bowels had acted twice this morning attended with hæmorrhage. To continue the electuary at bed-time, and to use half a pint of cold water, containing a scruple of tannic acid as an enema after each stool.

Oct. 6.—She loses much less blood at stool; the confection moves the bowels twice a day. To inject cold water only after defecating, and to use soap and water externally night and morning.

Oct. 16.—But slight bleeding now occurs. She is much troubled with flatulence. To continue the enemata of cold water and ablutions. To take every night seven grains of compound rhubarb pill, two grains of blue pill, and two grains of extract of henbane; and, twice a day, one ounce of compound infusion of gentian, five grains of carbonate of ammonia, and a drachm of compound tincture of cardamoms.

Oct. 20.—Since I last saw her no bleeding has occurred; her countenance is brighter, her tongue clean, and the bowels act regularly. The external piles are collapsed, leaving an irregular fold of integument half an inch in length around the anal margin.

April 7, 1853.—This patient continues free from all

pain and inconvenience, she takes the pills occasionally, and has not omitted to observe ablutions with soap and water night and morning.

Strangulated internal piles, preceded by excessive hæmorrhage.

D. B., æt. thirty-four, a jeweller, applied at the Blenheim Dispensary, Sept. 27, 1852; he is above the average height, of ordinary conformation, bilious temperament, complexion unhealthy, habitual state of mind melancholy, habits of life irregular. He has suffered for fourteen years from external piles; during the last four years has lost a considerable quantity of blood from the rectum, and has experienced great pain within the gut.

The present attack commenced on Sept. 25, with excruciating pain in the rectum, aggravated at stool, and attended with copious hæmorrhage. His countenance and lips are pallid, pulse feeble and quick, skin dry and hot, tongue furred. On making an examination, I perceived four large internal piles prolapsed and tightly embraced by the sphincter; the thin integument around the anus raised in folds. Ordered him to go home and to bed. I visited him at his house, and returned the prolapsed piles; in doing this it was necessary to make very firm and continued pressure. To be cupped over the sacrum and on the perinæum. An ounce of castor oil to be taken immediately, and hot fomentations to be applied to the anus.

Sept. 30.—He is in less pain, the bowels have acted twice, the piles are prolapsed; they were returned with greater facility than yesterday, and were less congested. Three

grains of gray powder and four of Dover's powder to be taken at bed-time, and a teaspoonful of a purgative electuary in the morning. To continue the fomentations, and to return the piles should they be prolapsed at stool.

By observing the treatment directed, the acute symptoms soon subsided. I proposed removing the tumours by ligature, but, being free from pain, he preferred waiting the chance of another attack. Ordered him to use soap and water externally night and morning, and to inject half a pint of cold water after each dejection.

Dec.—By following the injunctions given him he has been free from pain, but the tumours are occasionally protruded, and he has lost, from time to time, a small quantity of blood.

Nov. 1853.—At the present time I have a patient under my care with a very close stricture of the urethra, who was acquainted with D. B.; he informs me that he died a few months since of some acute disease of the chest, following a drunken bout and exposure for several nights. He was very clever at his business, but seldom worked more than three days in the week; the remainder he spent in debauchery.

Internal hæmorrhoids, much loss of blood, attended with giddiness and drowsiness.

R. R., æt. thirty-eight, was advised to consult me by my friend, Mr. William Bennett, surgeon to the Bloomsbury Infirmary. About fourteen years since he first suffered from external piles, which have continued to trouble him more or less up to the present time; eight years ago he expe-

rienced pain within the anus, and a sensation of the presence of a foreign body; defecation was difficult, attended with increase of pain and hæmorrhage, and from that period he has continued to lose a considerable quantity of blood at intervals; he has also been annoyed by a constant discharge of mucus from the bowel. He has always been subject to constipation, and suffered from flatulence, pain in the abdomen, giddiness of the head, and depression of spirits. His habits of life are temperate.

He came to me on the 10th of Nov. 1852, his countenance was sallow, eyes dull, lips and gums pale, tongue furred, pulse frequent and irritable, bowels acting scantily and irregularly; has little power of retaining his fæces during any violent exertion; the bladder is irritable, and he has some difficulty in micturating. The anal orifice is surrounded by a margin of loose skin, evidently collapsed external piles; the sphincter ani is relaxed. Introducing the finger within the intestine, two large internal hæmorrhoids were felt; these were extruded by a very slight effort at straining, and the mucous membrane was then seen in a granular state. He informed me that the hæmorrhoidal tumours descended by walking or riding in any vehicle that shook him much. To take six grains of extract of taraxacum, and three grains of blue pill every night, and in the morning a teaspoonful of an electuary compounded of confection of senna, sulphur, bitartrate of potash, jalap, copaiba, ginger, and a sufficient quantity of syrup. To use ablutions of soap and water night and morning.

Nov. 14.—He has taken the medicines ordered, and the

bowels have acted every day, but not freely; he passed some clots of blood yesterday, and this morning a table-spoonful of bright blood. To continue the remedies.

Nov. 17.—He has had very little pain, and passed but a small quantity of blood; still complains of drowsiness and giddiness. Examination of the urine demonstrated an excess of urea, and under the microscope numerous crystals of oxalate of lime were seen.

℞ Infusi Gentianæ comp. ℥x.
Magnesiæ Sulphatis ℥j.
Acidi Sulphurici diluti ℥iss.
M. fiat mist. Sumat cochl ij. magna bis in die.

To inject half a pint of water, containing sixteen grains of sulphate of zinc, after each evacuation of the bowels.

Dec. 1.—He has taken the medicines regularly, and used the enemata as directed; feeling so much better, he did not think it necessary to see me at an earlier period; he has had no sanguineous discharge the last twelve days; a slight mucous discharge continues. He can now retain his fæces during exertion; he was drowsy on one occasion since his previous visit to me, but is not so now; his eyes are bright, countenance clear, pulse 76; the irritability of the urinary organs has ceased.

Dec. 15.—Has continued the medicines, and expresses himself as feeling better than he has for many years; his countenance is clear and healthy, pulse regular, appetite good; he does not suffer from flatulence, has gained strength, and does not feel fatigue after an ordinary

amount of exercise. To inject cold water only after each stool.

This patient visited me in May, 1853; he had continued to take the medicines occasionally, and had not omitted the injection of the cold water; the only annoyance he experiences is a mucous discharge from the anus. I examined the bowel: the internal piles are still large, but not turgid; the mucous membrane is in a much healthier condition. Removal of the piles was advised in the first instance, but his occupations prevented him laying up for a few days, and as he now suffers but little comparative inconvenience, he is content to remain as he is.

Internal hæmorrhoids; loss of blood, cessation of the catamenia; health restored without operation.

Miss ——, æt. twenty-two, of ordinary stature and conformation; her health had declined three years previously to her coming under my care. The menses appeared when she was sixteen, and continued regularly till she was nineteen; they then became scanty, and twelvemonths afterwards ceased altogether; she became pale, lost flesh, suffered from dyspepsia, had frequent headaches, and was extremely nervous. Change of air had been tried, and she had been under medical treatment at various places.

On questioning her as to her symptoms and the state of the bowels, I learned she had always been costive, and, at the commencement of her indisposition, she had pain and a feeling of fulness in the lower bowel, which increased

in severity; after a time she lost blood per anum when the bowels were moved, the quantity increasing with the persistence of the disease, and the last two years she never visited the closet without losing more or less. She had not mentioned the circumstance to her mother or to any of the medical men under whose care she had been; the reason she assigned for not having done so was that she had never been questioned on the subject. She was perfectly anæmic, her pulse was feeble and irritable, she had frequent headache, which was increased by walking, or even by sitting upright, her extremities were cold, the eyes dull, tongue furred, the countenance had a waxy unhealthy appearance; the abdomen was hard, and the bowel slightly descended at stool. I made an examination, and found two hæmorrhoidal tumours. Medicines and enemata were prescribed to unload the bowels, afterwards an astringent injection was used after each evacuation, for which cold water was substituted in about a fortnight. Chalybeates and laxatives were then ordered, and under this plan of treatment she perfectly regained her health and strength, and was able to resume the equestrian exercise she had previously been accustomed to.

Hæmorrhoids induced by stricture of the urethra.

G. B., æt. forty-three, married, of robust constitution; for a long period had observed the stream of urine decreased in size, and, for some months before applying to me, it had not been larger than a small crowquill, and if the weather was wet or cold he passed it in drops only; he had frequent desire to urinate, and was obliged to get

out of bed several times each night; during micturition he strained violently. For nine months he had suffered from internal and external piles attended with frequent paroxysms of pain and bleeding. Although suffering much, he had neglected the stricture of the urethra; he sought my advice for the affection of the rectum. Tracing the progress of his maladies, I conceived the hæmorrhoids to have been induced by irritation and determination of blood, excited by the disease of the urethra, and the straining that attended micturition; therefore it was necessary to relieve that affection before benefit could accrue from treatment of the piles; with some difficulty a No. 2 catheter was passed through the stricture; by the introduction of others, gradually increasing the size, the canal was ultimately restored to its proper calibre; during this treatment the bowels were kept open by laxatives; ablutions of soap and water were used night and morning. When the urethra was sufficiently dilated to permit the urine to pass without any straining, and the irritability of the bladder had subsided, half a pint of cold water was injected into the rectum night and morning, after defecation, with the effect of arresting the hæmorrhage. The two external piles that existed were hard, and occasionally painful, and if he walked much were liable to get slightly excoriated, they were therefore excised; the wounds healed readily; by attending to keep the bowels easy, and continuing the injection of the cold water, the symptoms of the internal hæmorrhoids subsided. There being a disposition in the stricture of the urethra to contract, a bougie is passed once or twice, at intervals of a few weeks.

Internal hæmorrhoid treated with nitric acid.

M. J., æt. twenty-seven, married four years, has no family. Tall and of ordinary conformation. Her habits are sedentary; previous to her marriage she followed the occupation of a dressmaker; she had suffered much from dyspepsia and constipation. About the end of 1849, she began to experience discomfort in the rectum, having a sense of fulness and aching in the part; these disagreeable sensations increased, and, in a few months, resolved themselves into acute pain, which was aggravated after a motion; the bowels acted very irregularly, sometimes not for several days, at other times diarrhœa supervened. In a short period after the accession of acute pain, she began to lose blood per anum, the quantity increased, and varied from a tablespoonful to half a pint; at times it was florid, at others dark and clotted. The menses became irregular, and at length ceased, and she was troubled with leucorrhœa. She had had advice, and taken various medicines, such as confection of senna, blue pill, saline purgatives, but without benefit.

When I saw her—autumn, 1850—she was pale, weak, and nervous; suffering from frequent headache, which was increased in intensity in the upright position; her feet were always cold, and she complained of flatulent distension of the stomach and abdomen, and great pain in the rectum, attended with mucous discharge, and hæmorrhage at stool. Ordered a dose of castor oil to be taken in the morning, and a pint of thin gruel as an enema, two hours afterwards. The bowels acted several times, and when I

visited her, the intestine was slightly prolapsed, rendering visible the margin of a florid, granular excrescence of the mucous membrane; by pressing the intestine down, the whole diseased surface was brought into view; it was about five-eighths of an inch in diameter, and of an oval form; the rest of the intestine was healthy. Laxatives and tonics were prescribed to regulate the bowels, and restore her general health; and to restrain the bleeding, cold water, containing lead, zinc, and other astringents, was injected twice a day; she was also confined to the sofa. The treatment was persevered in for a month, with the effect of improving her health, but not relieving the pain in the bowel, or diminishing, in any sensible degree, the hæmorrhage. It was, therefore, determined to apply nitric acid to the morbid tissue. The bowels having been thoroughly freed, and the mucous membrane made to descend by the administration of an enema, concentrated nitric acid was applied to the diseased part, which was afterwards smeared with oil, and the intestine replaced. An opiate was administered, the patient experienced but slight pain after the operation, and slept well at night. On the third day she had some castor oil, when the bowels acted she felt some smarting, but no hæmorrhage occurred. She was directed to inject four ounces of cold water, containing eight grains of sulphate of zinc, night and morning. In rather more than a fortnight all local disease had disappeared; by the use of tonics, attention to the bowels, and taking exercise, she regained her health, the leucorrhœa ceased, and the catamenia re-appeared at proper intervals.

Internal hæmorrhoids, excessive pain; treated with nitric acid.

Mrs. ——, æt. thirty-three, married; the mother of four children, the youngest three years old, of delicate constitution, has always suffered during her pregnancies from enlargement of the veins and œdema of the legs; the bowels at those periods were particularly obstinate; she has always been of costive habit and has had constant recourse to purgatives, chiefly salines; during the period of gestation she has also suffered from external piles. In 1848 she began to experience aching, weight, and fulness in the rectum; hæmorrhage occurred at intervals, increasing in quantity as time rolled on. Pain in the bowel became very distressing.

When I was consulted (1850) she had not been able to leave the house for some weeks, and had been confined to the couch, feeling easier in the prone position. She was pale, nervous, and debilitated; the menstrual secretion had been scanty and occurred at lengthened intervals; she complained of acute pain in the rectum, increased to a violent degree at stool, followed by hæmorrhage of an arterial character. Her skin was dry, tongue flabby and furred, pulse small, urine scanty and high coloured, appetite bad, it had previously been capricious, sometimes voracious; she had pain at the epigastrium, and flatulence; the abdomen was hard, and dulness on percussion in the course of the colon existed. Examining the rectum it was found loaded with indurated fæces; on the right side, about three

quarters of an inch from the margin of the anus were two excrescences each about the size of a fourpenny-piece, their surfaces were florid and granular in appearance, and bled freely on the slightest touch. I proposed applying the concentrated nitric acid to the morbid tissues; but, it being necessary to unload the bowels and get the constitution into a better state, the following remedies were prescribed, and the patient ordered to remain in bed.

℞ Pilulæ Hydrargyri gr. iij.
Pulveris Ipecacuanhæ comp. gr. v.
Extracti Glycyrrhizæ q. s.
Ut fiant pil. ij. hora somni sumendæ.

℞ Pulveris Rhei gr. xviij.
Sodæ Potassio-tart ʒiss.
Confectionis Aromatici gr. x.
Essentiæ Cinnamomi ɱvj.
Aquæ Cinnamomi ʒiss.
M. fiat haustus, primo mane sumendus.

℞ Decoct Hordei ʒxix.
Olei Ricini ʒj.
M. fiat enema.

The remedies acted freely in the morning, attended with pain in the rectum and a considerable discharge of florid blood.

℞ Potassæ Citratis ʒj.
Potassæ Nitratis gr. xxx.
Tincturæ Serpentariæ ʒiv.
Aquæ ʒvss.
M. fiat mist. Sumat cochl ij. ampla ter die.

The pills, draught, and enema were administered four times, the abdomen became soft and the general health somewhat better, but the pain in the bowel continued, and hæmorrhage occurred at each action of the bowels which the injection of cold water failed to check.

On the seventh day after I first saw her I introduced a speculum ani, and touched the raised and granulated mucous membrane with the strong nitric acid, using a piece of lint on the end of a probe; smarting was experienced at the time, but this soon subsided, an enema of four ounces of starch and thirty minims of liquor opii sedativus having been injected into the bowel. Ten grains of Dover's powder were administered at bed-time. She passed a tranquil night; on the third day the bowels were moved by a dose of castor oil, smarting was experienced at the time; she was directed to inject twice a day four ounces of water and eight grains of sulphate of zinc. In ten days the sloughs had separated and the ulcerated surfaces nearly healed. The bowels were kept open by castor oil. In a a few days more she was quite free from the local malady, but was still pale and weak.

The following draught was prescribed:—

℞ Ferri Ammonio Citratis gr. v.
Potassæ Bicarb. gr. xij.
Magnesiæ Sulph. ℈j.
Aquæ ℥xj.
Syrupi ℥j.

M. fiat haustus in actu effervescentiæ cum succi limonis cochl amplo bis in die sumendus.

This medicine was continued for several weeks, and she went out every day for a walk, or in her carriage if the weather was unfavourable. Her health became better than it had ever been, the menstrual function was performed regularly and was natural in quantity.

Internal hæmorrhoids, medical treatment not arresting the symptoms, the tumours removed by ligature.

The Rev. ——, æt. forty-seven, of ordinary stature, of studious and sedentary habits, lived more freely than was compatible with the little exercise he was accustomed to take; had long suffered from constipation, flatulence, and giddiness. For several years previous to my seeing him he had been subject to hæmorrhoids, attended with great loss of blood at times. When he consulted me in the spring of 1846, bleeding had occurred daily for three weeks, which had greatly reduced him. On examining the intestine three internal piles were discovered, two being much larger than the other. His pulse was quick and weak, his tongue furred and skin dry. Ordered five grains of gray powder, and six grains of Dover's powder to be taken at bed-time, and one ounce of castor oil in the morning; an hour after taking the oil a pint of thin gruel was thrown up the bowel. The medicine and enema acted freely, bringing away a large quantity of indurated fæces, attended with pain and a considerable loss of blood. The bowels were kept easy by an aperient electuary, and eight ounces of cold water, containing a scruple of acetate of lead and twenty minims of tincture of opium, injected twice a day; the hæmorrhage continuing, turpentine and other remedies

were tried but without any beneficial result. I proposed ligature of the tumours, to which he was unwilling to submit. Mr. Liston then saw him in consultation, and agreed upon the necessity of the operation. On the following day, double ligatures were applied to the tumours, in the manner directed in the text, and firmly tied; a dose of castor oil and an enema had been administered and had acted freely before the operation was performed; thirty minims of the liquor opii sedativus, in camphor mixture, were given immediately afterwards. Pain was experienced during the afternoon of the first day. On the third day after the operation, the bowels were moved by castor oil; the ligatures separated on the fifth and sixth days. The bowels were kept easy by emollient enemata, and half a pint of cold water, containing sixteen grains of sulphate of zinc, was injected twice a day. He was quite well in less than four weeks; he had taken the following mixture for some days, and was ordered to continue it till the bowels got into a regular state :—

℞ Decocti Cinchonæ ℥vss.
Tincturæ Cinchonæ comp. ʒiv.
Magnesiæ Sulphatis ʒvj.
Acidi Sulphurici diluti ʒj.
Misce fiat mist. sumat cochl ij. magna bis in die.

He was enjoined to take exercise every day, and to attend to the condition of the digestive functions. I have not heard of this gentleman within eighteen months, but up to that time he had been quite free from any hæmorrhoidal affection.

Internal hæmorrhoids, great loss of blood, removal of the tumours by ligature.

K. M——, æt. thirty-seven, single, a cook in the service of my friend and colleague, Mr. Hulme, who requested me to see her, as he was then suffering from severe indisposition. She stated she was first attacked with piles ten years ago, and has never been well since; for the last five years she has lost a considerable quantity of blood at intervals. Hæmorrhage had been going on for three weeks previously to my seeing her (Feb. 1853); she had not informed Mr. Hulme of her indisposition till she was no longer able to keep about; he ordered her to bed, and directed cold and astringent applications. When I saw her she was perfectly blanched and hardly able to turn in bed, her pulse was feeble and quick; on making an examination the anus was observed surrounded by a fold of integument greatly distended, and having a pale semi-transparent appearance. Three internal hæmorrhoidal tumours existed, they were pendulous, and about an inch in length and three eighths of an inch in diameter; the mucous membrane was granular, and bled freely on being slightly touched.

Taking into consideration the duration of the disease, the state of the patient, and the condition of the tumours, I deemed removal of them by ligature the most appropriate plan of treatment. Early in the morning she had taken a dose of castor oil which had acted freely, it was therefore determined to perform the operation at once; an enema of warm water was administered, and on its being ejected

the tumours were prolapsed; double ligatures were then passed through each of them, and tied tightly so as entirely to interrupt all vascular and nervous connection. The ends of the ligatures being cut off, the piles were returned within the sphincter; thirty minims of tincture of opium were given for the purpose of producing temporary constipation and of tranquillizing the system.

On the second day after the operation she had pain in the bowel, and slight difficulty in micturating. Directed to have a hip-bath; to take a dose of castor oil the following morning; and to have an emollient enema injected twice in the twenty-four hours.

The whole of the ligatures had separated by the eighth day, no bleeding had occurred since their application. Slight inflammation of the rectum supervened, which was due to the patient not attending strictly to the directions given her with regard to diet and medicines; it speedily yielded to simple treatment, and she made a favourable recovery. The external fold of integument collapsed, and the anal orifice resumed its natural size. She has had no pain, hæmorrhage, or other symptoms of the disease, and continues perfectly well.

Internal piles; catamenial and hæmorrhoidal flux alternating; tumours removed by ligature.

M. C., æt. thirty-nine, married twelve years; has had five children; for several years has suffered from internal piles which first appeared while she was pregnant with

her second child; prior to that time she enjoyed good health. She placed herself under my care in 1845; she was then pale, nervous, and weak. During the preceding twelve months the hæmorrhoidal affection had troubled her greatly; her bowels were torpid, never acting without being excited by medicines; she experienced great pain in the bowel, up the sacrum, in the loins, and down the thighs. Sometimes at the catamenial period profuse hæmorrhage occurred from the rectum and superseded the uterine function, on other occasions the menstrual flow appeared in due course, and then there was little or no bleeding from the piles. In the intermediate time she lost blood whenever the bowels acted, and was much troubled with mucous discharge. Her pulse was quick and weak, her skin pale, dingy, and clammy; she complained of violent palpitation of the heart from the slightest exertion; her feet were always cold, and swelled much during the after part of the day. I examined the bowel, the anus was somewhat relaxed, and two large internal hæmorrhoids were partly prolapsed, they were highly congested and very painful. The first object was to improve her health generally; for this purpose she took small doses of gray powder and Dover's powder at bed-time, and castor oil in the morning; also, for a few days, a mixture of citrate of potash and nitrate of potash in camphor julep; afterwards the ammonio-citrate of iron in infusion of calumba; several enemata were exhibited. In ten days her health was improved; the bleeding from the piles, though not so profuse, still continued; she had considerable pain

at times, and experienced great annoyance from the mucous discharge and prolapsus of the tumours.

It being determined, after due consideration, to apply a ligature to the hæmorrhoids, a large enema was thrown up the bowel by an elastic tube, and after it had come away a double ligature was passed through the base of each tumour and tied, the ends were then cut off and the parts returned within the anus. My late and lamented friend, Mr. Morton, attended the case with me, and kindly lent me his assistance on the occasion. Some pain was experienced during the night, and in the morning she felt slight difficulty in passing her water; these symptoms were relieved by a hip-bath, and warm poultices to the anus; a draught of hyoscyamus and nitric æther in camphor mixture was prescribed. On the third day after the operation the bowels were moved by a dose of castor oil, which was repeated every second day for a fortnight. The first ligature separated on the sixth, and the last on the ninth day; six ounces of water, containing twelve grains of sulphate of zinc, were then injected up the bowel night and morning. In three weeks the local affection was quite cured; but as the bowels did not act freely, and she had not thoroughly regained her strength, the following medicines were prescribed:

℞ Infusi Sennæ comp.
Infusi Cinchonæ aa ℥vj.
Potassæ Sulphatis gr. xxx.
Liquoris Taraxaci ℥j.
M. fiat haustus primo mane sumendus.

℞ Infusi Calumbæ ℥vss.
Ferri Ammonio-citratis ʒss.
Spiritus Ammoniæ Aromatici ʒj.
Syrupi Zingiberis ʒiij.
Misce fiat Mist. Capiat cochl ij. magna bis in die.

She continued the remedies for a few weeks, in which time her health was restored, and the catamenia became regular.

CHAPTER X.

ENLARGEMENT OF HÆMORRHOIDAL VEINS.

The hæmorrhoidal veins are liable to dilatation quite distinct from, and not to be confounded with, the morbid condition of the several tissues constituting piles. They assume precisely an analogous condition to the veins of the testicle forming varicocele, and to the branches of the saphena vein constituting the troublesome affection generally known as varicose veins of the leg.

There are certain physiological causes that predispose to the enlargement of the hæmorrhoidal veins, and others that are pathological. It will be remembered that the portal system, which commences in the veins of the rectum is destitute of valves, consequently the radical branches are subject to the pressure of the entire column of blood. Impediments to the venous circulation are very liable to occur from congestion of the liver, from pressure on the venous trunks by overloaded and distended intestine,

by the pregnant womb, and abnormal abdominal tumours.

A predisposition to venous dilatation generally exists in those who have the hæmorrhoidal veins dilated, it being not unusual to observe it associated with varicocele and enlargement of the branches of the saphena veins.

The symptoms are a sensation of weight and distention about the rectum, uneasiness in the loins, a feeling of sinking and general lassitude, and the same mental depression which is observed to attend dilatation of the veins of the leg and testicle. The dilated veins may be felt on either side of the rectum like a bundle of earth worms, the same as in varicocele. They sometimes form tumours, projecting internally or externally to the sphincter, but their appearance is very different from those caused by hæmorrhoids. I have not met with a case in which they formed tumours, but one author gives a drawing of a case where tumours existed on both sides of the anus. In those cases that have come under my observation the symptoms described have been complained of, and the veins were distinctly felt immediately within the margin of the external sphincter.

The only treatment that will be of service is attention to the bowels, and to prescribe tonics with

the mineral acids. Six or eight ounces of cold water may be injected into the rectum twice or thrice a day with advantage, the cold-bath and ablution in cold water, night and morning, will afford great relief, but a jet of cold water directed against the anus is more efficacious.

CHAPTER XI.

PROLAPSUS OF THE RECTUM.

INDEPENDENTLY of the eversion of the mucous membrane that frequently attends internal hæmorrhoids, and which has been considered in the Chapter on Hæmorrhoidal Affections, the rectum is subject to protrusion from other causes.

Prolapsus, or procidentia ani, are the terms by which this form of disease is familiarly known ; an error in nomenclature very evident from the fact that the anus is merely the opening of the termination of the alimentary canal, and cannot therefore itself be protruded. Prolapsus recti is now very properly used by several recent writers, and conveys a correct idea of the affection.

Two forms of prolapsus recti occur : in the one the whole of the tunics of the rectum descend, and in the other form the mucous membrane alone is prolapsed. By many former writers it was maintained that the muscular coat of the intestine was never extruded, but preparations which are to be seen in King's College

and other museums, incontestably show the opinion to be erroneous ; in the large majority of instances, particularly where the eversion does not take place to a great extent, it is the mucous and submucous areolar tissue only that descends ; the firmer attachment of the muscular coat to the surrounding parts and its function render it less liable to be prolapsed then the mucous membrane, which is more voluminous and but very loosely connected. Mr. Copeland,* doubted the protrusion of the muscular coat ; he says, "In almost every case of prolapsus ani, it is the internal membrane only of the intestine which descends through the sphincter muscle. The connection of the external surface of the rectum is so firm with the surrounding parts, that it is almost impossible the whole should be protruded together ; a separation or elongation of the union between the coats of the intestine must therefore precede the disease, and form its essential character ; whether it be produced by the effusion of blood between them, or by the continued tenesmus, or efforts to pass the fæces, or peculiarity of structure, or any other cause."

From anatomical causes, children are more subject to protrusion of the bowel than adults ; thus in them

* "Observations on the Principal Diseases of the Rectum and Anus," by Thomas Copeland. Third Edition. 1824. Page 73.

the sacrum is less curved, the coccyx is not ossified and remains moveable on the sacrum, the intestine itself is straighter, and its connections are less extensive from the imperfect development of the prostate, urethra, and vesiculæ seminales.

The causes of prolapsus are constitutional, and depend upon some peculiarity of the general health or of the habits or occupation of the individual; or they are local, either from disease or irritation existing in the rectum or in contiguous organs.

Of this affection, as well as of several others to which the rectum is liable, costiveness is one of the most general causes. When the bowels are not relieved every day the fæces accumulate and become hard, the watery portions being taken up by the absorbent vessels, the bowel becomes distended, local and general irritation is induced, and violent expulsatory efforts are necessary to dislodge the indurated mass; which, pressing on the bowel in descending, may not only drag down the mucous membrane, but cause the rectum itself to protrude.

Chronic diarrhœa and dysentery are likewise causes of this disease, they are accompanied by straining, irritation, and determination of blood to the lower part of the intestinal canal; and inflammatory action and various morbid alterations of structure are induced.

Disease of the liver is not unfrequently associated, as a cause, with prolapsus of the rectum ; those who have resided in hot and miasmatous countries and have suffered from hepatic affections, are very liable to experience the miseries of prolapsus.

Prolapsus may result from indigestion : the primary seat of the evil being in the stomach or duodenum, or some defects in the functions of the pancreas and liver, whereby the fæcal matter is rendered irritating and diarrhœa induced; or, on the contrary, the rectum and colon may not be sufficiently stimulated and fæcal accumulations are thereby favoured.

Sedentary occupations act rather as a predisposing than a direct cause of prolapsus. By insufficiency of exercise a torpid state of the alimentary canal is induced, the biliary secretion becomes diminished, and the skin does not properly perform its excretory functions.

Prolapsus may be attendant upon the violent straining and forcible muscular efforts during difficult parturition, or from the relaxation occurring by frequent child-bearing. It may also be produced by violent and immoderate horse exercise.

Constitutional weakness, hereditary or induced, is another cause. The children of the poor are the subjects of prolapsus from being badly nourished, and living in close and unhealthy habitations, or by being

suckled too long. In a public infirmary, a short time since, I had an infant under my care, which illustrated in a marked degree, the effect of neglect and deficiency of proper nourishment; several inches of the bowel were prolapsed; it was with great difficulty it could be reduced, and it was still more difficult to prevent its descent; but no treatment could be any avail, the debility was so great and the assimilative functions were so impaired, that death very shortly put an end to the little patient's sufferings.

The local causes in adults are hæmorrhoidal disease, polypi, enlarged prostate, stricture of the urethra, stone in the bladder, inflammation of the bladder, inflammation of the rectum, loss of tone in the sphincter ani from some lesion of the spinal cord, or other circumstance; from debility of the intestine itself, produced by excessive fæcal accumulations, or the habitual use of large enemata, and the extraction of large foreign bodies from the rectum. In children, the most frequent causes are urinary calculi, intestinal irritation produced by acrid secretions, or the presence of entozoa, and the irritation that often exists during the period of dentition.

The symptoms produced by prolapsus recti are various, according to the duration of the disease, and the extent to which the bowel is protruded. The tumour in children is red, pyramidal, and coiled in

form ; in adults it is either globular, cylindrical, or appears as lateral folds on each side of the anus. The amount of intestine protruded varies from a mere fold of the mucous membrane to several inches of the whole of the tissues. In the case of a child who had stone in the bladder, which Mr. Liston removed, the intestine was prolapsed to the extent of six inches. At the commencement of the affection, the intestine is retracted spontaneously after the passage of the motion, but ultimately it becomes necessary to replace it with the hand. Sometimes the protrusion increases very rapidly, especially in children ; but if the patient is an adult, and not advanced in life, or labouring under constitutional debility or weakness of the muscular apparatus of the anus, it takes place more gradually. A copious secretion of red glairy mucus is poured out from the lining membrane of the rectum ; pain is felt in the hips, down the thighs, and even extending to the legs and feet, and may be attributed to rheumatism or sciatica.

After prolapsus has existed some time the mucous membrane becomes indurated and loses its villous appearance. When the sphincter is relaxed and the anus dilated from the repeated protrusion of the bowel, the latter descends on the slightest exertion, even assuming the upright position is sometimes suf-

ficient to cause it to fall down, it is then very liable to become ulcerated from the friction to which it is exposed; in these cases the pain and distress are almost insupportable; defecation produces acute agony, and the patient is compelled to lie down for an hour or two afterwards.

In the treatment we have to consider the removal of the cause, the replacement of the protruded intestine, and afterwards to retain it in its natural position; if we fail in the latter, it will then be necessary to have recourse to operative surgery.

Our first efforts must be directed to the replacement of the protruded bowel; provided the prolapsed portion is free from engorgement, this may be effected at once, but if, on the contrary, there are inflammation and vascular turgescence, leeches must be applied to the surrounding parts, and hot fomentations of decoction of poppy-heads afterwards used. Some have recommended scarifications and leeches to the bowel itself, but their use has been justly censured by most practical surgeons. If the engorgement is not sufficient to require the abstraction of blood, the application of cold lotions will prove beneficial. In order to replace the intestine, the patient must be placed on his side in the recumbent position, or be directed to kneel on the bed and rest on his elbows; the buttocks being separated by an

assistant, the surgeon grasps the tumour in a piece of oiled linen, makes firm compression, and, having reduced its volume, pushes it within the sphincter. During this proceeding the patient must be desired not to strain, or our endeavours will be opposed. Should contraction of the sphincter prevent the return of the bowel, the muscle must be divided by inserting under its constricting margin the nail of the fore-finger on which the knife used in operating in fissure is to be carefully guided, and the necessary incision made; or we may put the patient under the influence of chloroform, and, on renewing our attempt, it will usually be successful. In children, especially if the prolapsus be large, great difficulty will be experienced in returning it; to facilitate the operation, some recommend the introduction of the finger into the bowel, which is to be carried up with it; while the finger is being withdrawn, the intestine is to be supported with the left hand. Sir Charles Bell recommends the finger being covered with oiled paper, which will allow it to slip easily out without bringing down the bowel.

Having returned the prolapsus, a pad of lint must be applied and retained with a T bandage. The attention must then be turned to the constitutional treatment and to the removal of the cause. The digestive organs should be attended to, and any errors of diet corrected; the aliment allowed must be

easy of digestion, nutritious, and such as will not cause bulky evacuations; highly seasoned dishes and large quantities of vegetables and fruit are to be prohibited; the tone of the stomach, if impaired, is to be restored by bitter infusions and aromatics, with the addition of soda, potash, or ammonia; in some cases, the mineral acids will be found to agree better than alkalies.

Too great attention cannot be paid to prevent costiveness which so generally accompanies this disease either as a cause or effect, but we must avoid having recourse to drastic purgatives. Emollient enemata, castor oil, lenitive electuary, Rochelle salts, and other similar remedies, will be the most desirable. It is very essential not to overlook the state of the liver, congestion of this organ will often be indicated by the lividity of the prolapsed bowel; alterative doses of mercury with ipecacuanha, taraxacum, and nitric acid, will be serviceable in hepatic derangement. After every evacuation the anus should be washed with soap and cold water, and four or six ounces of an astringent injection be thrown up the rectum: the decoction of oak bark with alum, or a solution of tannic acid, are better than solutions of the mineral salts.

In children, the treatment of prolapsus of the rectum is very troublesome and often tedious; the nurse must be directed not to allow the child to

sit straining on his chair as is too commonly the practice, and she should be instructed to replace the gut immediately after the motion is passed, previously washing it with a little alum and water, or a solution of tannic acid. The bowels must be kept easy, for which purpose castor oil is the best agent, some advise calomel and jalap, but it is likely to produce tenesmus. Sir Benjamin Brodie * recommends the following treatment: "Purge him with calomel and rhubarb occasionally; be very careful about his diet, that he does not eat a great quantity of vegetable substance, which tends to fill up the cavity of the bowel, while it affords but little nourishment; and every morning let some astringent injection be thrown up. The injection which I have generally used is a drachm of tinct. ferri muriatis in a pint of water; and two or three ounces or more of this, according to the age of the patient, may be injected into the rectum every morning, the child being made to retain it as long as possible."

When calculus vesicæ is the cause of the prolapsus, the stone must be extracted, and the effect will then probably subside without any special treatment; if the presence of ascarides cause the bowel to descend, they must be removed by the means recommended in the eighteenth chapter.

* "Medical Gazette," vol. xv., page 845-6.

Prolapsus recti in the adult, if of long standing, will rarely admit of being remedied by medical treatment, and we must have recourse to surgical operation for the relief of the patient. Of the various operations that have been proposed, none are so simple, attended with so little pain, and so effectual as that proposed by Mr. Copeland.* The patient, previously prepared by the bowels having been thoroughly unloaded by mild purgatives and enemata, is directed to lean over the back of a chair, or to rest on a bed with his legs drawn up ; according to the extent of the disease, one, two, or more folds of the mucous membrane is to be pinched up with the forceps, figured at page 141, or, with a pair of common dressing forceps, and included in a firm, round, and smooth ligature, the knots must be drawn tight, that perfect strangulation may be effected. In order that the ligatures may not slip, and that they may come away sooner, I prefer transfixing the base of each fold with a needle carrying a double ligature, and tying it in two portions ; the pain is by no means increased, and the cure is expedited, as the threads have a smaller amount of tissue to cut through. After the operation, the prolapsus and the ligatures, the ends of the latter having been cut off, are to be returned within the

* "Observations on the Principal Diseases of the Rectum and Anus." Third Edition, 1824. Page 79 to 83.

sphincter. The patient must be confined to bed, and a dose of opium or morphia administered. On the second or third day the bowels should be moved by an enema of flaxseed-tea, or thin gruel and oil, and this must be repeated every day, or every second day as may be necessary. For some days the bowel will descend more or less, but as the ulcers caused by the ligatures cicatrize, this will diminish and a perfect cure will be effected.

When the descent of the bowel is caused by piles, the treatment recommended in the ninth chapter must be followed. If the protrusion is a result of relaxation of the anus, a marginal fold of the integument and mucous membrane must be excised from either side: the patient is placed in the same position as for lithotomy, or in that just described, a pair of forceps, a scalpel, or a pair of curved scissors, are the instruments required.

In some cases, on account of age, debility, or other circumstances, an operation cannot be performed, an endeavour must then be made to support the intestine by pads and a T bandage, or by a truss similar to that recommended by Gooch.* The best instruments of the kind that I have seen, are those made by Mr. Egg and Mr. Eagland.

* "Cases and Practical Remarks on Surgery." By Benjamin Gooch, Norwich, 1767. Vol. ii., p. 158.

The following cases illustrate this affection.

Prolapsus, caused by disease of the liver and dysentery, induced by a long residence in India.

Mr. A., æt. thirty-nine, had been nearly twenty years in India, the latter part of the time his health had failed, and his liver became affected; he had also had several dysenteric attacks. Shortly before leaving for England the rectum began to descend, and during the voyage occasioned him much suffering and inconvenience; mercury was administered freely by the surgeon of the ship, but with no benefit to his health. He consulted me after he had been in England two years; he was sallow and somewhat emaciated, his pulse was weak, quick, and irregular, he had frequent palpitation of the heart, and he was much troubled with flatulence; the bowels were irregular, and when they acted he suffered great pain, which continued some hours afterwards; he also complained of being annoyed by a discharge of mucus, and bleeding from the part. The several regions of the body were carefully examined, no organic disease of the heart could be discovered; the liver could be felt extending an inch below the margin of the ribs, and pressure over it produced a dull pain. A fold of the bowel on each side of the anus was protruded, and could not be kept up except when he was in the horizontal position, the surfaces were slightly ulcerated and somewhat altered from their natural appearance. The urine was examined on several occasions, and was observed either loaded with crystals of uric acid, or with

those of oxalate of lime. This patient was seen also by the late Mr. Morton, of University College Hospital, who concurred in the plan of treatment adopted, which was mild purgatives, gray powder with extract of taraxacum and tonics, with the nitro-hydrochloric acid, and the use externally of ablutions and astringent lotions. When his health had improved, ligatures were applied to both sides of the prolapsed bowel, and portions of the mucous membrane completely strangulated; the prolapsus was then returned and a dose of opium administered. The operation produced a slight amount of pain, but it subsided in an hour or two; he slept soundly during the night. On the morning of the third day he took a dose of castor oil, which moved the bowels several times, and caused a return of the prolapsus; the ligatures came away on the fifth day, after which the bowel protruded but very little, and before cicatrization was complete it had ceased to come down at all. During the time he was under treatment, his diet consisted of broths, arrowroot, and light puddings. When the ulcers produced by the ligatures were nearly healed, he used enemata of cold water night and morning, and in less than a month he had quite recovered.

Prolapsus, preceded by morbid irritability of the stomach and bowels; cured by operation.

A gentleman, æt. fifty-three, stout and of relaxed muscular fibre, had for many years suffered from morbid irritability of the stomach, being much troubled with flatulence and frequent vomiting of a watery fluid; his bowels were generally constipated, and defecation was at-

tended with violent straining, at times he had attacks of diarrhœa. He had no appetite for plain food, but partook freely of highly seasoned dishes. At length protrusion of the bowel at stool was superadded to his other ailments; for a time it returned after the evacuations had passed, but ultimately it became necessary to replace it with the hand. He experienced much pain and misery from the disease, and his linen was constantly soiled with mucus and fæces. Being very nervous and timid, and thinking some operative proceeding would be necessary, he endured the disease without making it known to his medical attendants; he had tried a variety of remedies without any decided benefit. When he came under my care I prescribed laxatives, tonics, and astringent lotions, with the effect of improving his health; however, the bowel continuing to be prolapsed, he consented to the operation I proposed, and accordingly a fold of the protruded membrane on each side was included in ligatures, which were tied as tight as possible; the parts were then returned within the anus, and an opiate administered. For the first two or three days he complained of pain, this was mitigated by the use of morphine and the application of hot poultices to the anus. The ligatures separated in less than a week; at this time the operation did not appear to have been successful, as the bowel still came down at stool, but as cicatrization progressed it protruded less, and shortly did not descend at all. The disordered condition of the stomach was relieved by tonics and the mineral acids, and the administration of the oxide of silver in combination with a mild aperient pill every night for some weeks.

Prolapsus relieved without operation.

W. C., æt. sixty-seven, of feeble constitution, had been for many years subject to falling down of the bowel, which he attributed to straining violently at stool; being of a constipated habit, he had long been necessitated to replace the bowel with his hand after defecation. I first saw him, in conjunction with my friend, Mr. Bennett, in consequence of his not being able to return the prolapsus, and its becoming excessively painful and occasioning great constitutional disturbance. The prolapsed intestine formed a tumour the size of a large orange; its surface was inflamed and very painful; some difficulty was at first experienced in returning the extruded bowel, but by firm and constant pressure it was at length accomplished; he was confined to his bed, hot fomentations used, and medicines prescribed to allay the constitutional symptoms. On the following morning a dose of castor oil was prescribed, and when it acted the bowel again descended, but was reduced with less difficulty than on the previous occasion. The state of his constitution rendered an operation unadvisable, but, by attending to keep the bowels open by gentle laxatives, and after their action using soap and water to the protruded part, by replacing it immediately, and retaining it by mechanical means, he was restored to a state of comparative comfort.

Prolapsus of the rectum, leucorrhœa and irritability of the bladder.

Mrs. ——, æt. forty-three, of very delicate constitution,

the mother of one child, but has had many miscarriages; from the state of her health she has taken very little exercise, and has always had great difficulty in keeping the bowels open. In the spring of 1849 she began to be troubled by a protrusion of the bowel when she strained at stool, which gradually increased; under medical advice she went to Brighton in the autumn, and tried sea-bathing, but with little benefit. The disease increased, and at last the bowel fell down even when she walked, profuse leucorrhœal discharge and irritability of the bladder were also induced. I first saw her in 1851, a circular fold of the bowel, between one and two inches in length, was prolapsed, after being returned it fell down again immediately on her walking about. Palliative means were tried for some time, but with no decided beneficial result further than improving the general health. It being evident that nothing but an operation would keep the intestine in its proper place, and the bowels having been thoroughly acted on, ligatures were applied on each side of the protrusion, in the manner described in the text; she progressed very favourably, the ligatures separated in the usual time, and she was no longer troubled by the descent of the bowel; by the use of alum baths the leucorrhœal discharge ceased, and by taking tonics and laxatives she was restored to a better state of health than she had enjoyed for many years.

CHAPTER XII.

ABSCESS NEAR THE RECTUM.

Abscess or abscesses forming in the vicinity of the rectum demand especial attention, and more prompt treatment than when occurring in most external parts of the body, in consequence of the evils immediately depending upon them, and the sequelæ arising from implication of the bowel.

Purulent formations in the neighbourhood of the rectum are not of infrequent occurrence, from the nature of the tissue surrounding the terminal portion of the intestinal canal which is especially prone to suppurative action, and in this locality the predisposition is increased by the looseness of the tissue itself, by its being unsupported by surrounding parts, by the numerous blood-vessels that exist there, and their liability to congestion from position and other causes.

Abscesses near the rectum occur under various circumstances ; they may be idiopathic, and either

acute, subacute, or gangrenous; they occur after fevers and diseases of a debilitating character, and in these cases appear critical; they may be produced by cold and damp, as sitting on stone benches, on the wet ground, or a wet seat while driving; they also arise from various causes in connexion with diseases of the rectum, as in stricture of that part; with the existence of internal and external piles; with ulceration of the lacunæ and perforation of the coats of the intestine, the result of inflammatory action arising from the entanglement of the fæces in the follicles, or other causes mentioned in the Chapter on Inflammation of the Rectum. Constipation and accumulation of fæcal matter in the rectum and colon will induce the formation of abscess by causing congestion of the vessels, which is increased during defecation by the violent straining to expel the hardened excrement. Foreign bodies penetrating through the tissues of the intestine and sphincter muscle into the cellular membrane, such as fragments of bones and other substances that have been swallowed; and injuries from without, as blows or wounds lead also to suppurative action.

Abscesses sometimes present near the rectum connected with disease in other parts, as with caries of the spine, ilium, or sacrum, with disease of the hip joint, and with affections of the uterus, prostate

gland, &c. They are also met with in patients labouring under various organic diseases, either of the liver, heart, or lungs ; phthisical patients are often sufferers from abscesses near the rectum, which generally lead to the formation of fistula in ano.

The acute idiopathic abscess is generally preceded by thirst, dryness, and heat of skin, scanty and high-coloured urine, and, in fact, by the usual symptoms of pyrexia. In the part itself there will be heat, pain, throbbing, tumefaction, and more or less redness of the integument. These symptoms continue for a few days, when at length pus is formed, rigors frequently marking its advent. When suppuration has been fairly and fully accomplished the feverish symptoms subside, and the patient generally becomes cool and comparatively easy. Although the swelling may now be considerable, and the part exquisitely painful to the touch, the acute throbbing previously experienced diminishes, and is superseded by a dull heavy sensation. If no surgical means be adopted to evacuate the matter, nature will form an opening to discharge it either externally through the integument, or internally through the intestine.

The subacute abscesses generally form far from the surface, and frequently contain a considerable quantity of ill-conditioned pus : at first they do not

occasion much pain or inconvenience; a sensation of bearing down of the rectum is experienced by the matter pressing upon it, but as it increases in quantity it gives rise to severe and distressing symptoms; there will be violent spasm attended with great pain; there will also be a constant desire to go to stool, although the bowels are free from fæcal accumulation. In other cases there will be no local symptoms of the existing mischief, and the constitutional ones may be obscure and perplexing. Sir Benjamin Brodie* mentions the case of a gentleman he attended, in whom an abscess formed by the side of the rectum, and who was not conscious of any local symptoms. He had been for some time subject to headache and languor, and was obliged to go home and lie down during the day. The first notion he had of the existence of the purulent collection was its bursting one day while he was walking.

As mentioned, the pus in these abscesses is not of a healthy character; it is, for the most part, of a dark colour, and frequently excessively fœtid; the latter circumstance may be owing to its contamination with fæces entering by a small aperture in the intestine, though I suspect it more frequently depends on the transudation of gases or fluids; indeed the stench is often much more fœtid and offensive

* "Medical Gazette," vol. xvi., page 26.

than any unlimited quantity of feculent matter. In a case I operated on last year, the fœtor was intolerable, and a free use of the chloride of lime was necessary in the ward of the infirmary where the patient was; and I remember a similar case, some years since, at University College Hospital; in neither could any connection with the bowel be detected, and they both healed without forming fistula, or requiring anything more than keeping the incision from closing till the cavity had filled from the bottom.

Gangrenous abscess usually occurs in those whose constitutions have been impaired by luxurious living, or by debauchery and excesses. The symptoms commence with rigors attended with fever; the pulse at first is full and hard, the tongue is coated, the skin dry and hot, there is great thirst, loss of appetite, and general restlessness; but the character of the symptoms soon change, the fever becomes of the adynamic type, the pulse is then weak, quick, and irregular, the countenance flushed, the tongue becomes brown and dry in the centre, and the edges red and glazy, and, in the worst forms, the lips and teeth are covered with sordes. The secretions and excretions are disordered, extreme debility and prostration are present, accompanied with more or less stupor. With the early constitutional symptoms a deep-seated pain near the rectum is complained of; if the part

be examined, hardness will be found, which rapidly extends, and the integument assumes a livid colour, while the pain becomes of a burning character. Tenesmus and dysuria are more likely to be present and severer in this than in other forms of abscess which we meet with near the neck of the bladder, except those occurring between the prostate and rectum.

Traumatic abcesses occur from violence from without, as from gun-shot wounds, punctures, and contusions; and from within by the entanglement by the sphincter of various foreign bodies which either pierce the intestine or produce perforating ulceration. Abscess from the first cause is seldom seen except in the practice of military surgery.

M. Ribes* mentions the case of an officer who received a musket-ball in the right buttock, which passed into the rectum, fracturing the tuber ischii in its course; the external wound healed in about six weeks, when an abscess formed in the right side of the perinæum; this was opened, and a fragment of bone and some pieces of cloth were extracted. Bushe† had a soldier under his care who was wounded in India, the ball passing into the rectum; the opening into the intestine healed, but the external one remained fis-

* "Memoires de la Societé Médicale d'Emulation," tome ix.

† Op. cit. page 235.

tulous till two pieces of cloth were removed, several months after receipt of the injury.

Numerous interesting cases of traumatic abscess occurring from the entanglement of foreign substances within the rectum, are on record, among them the following. Le Dran relates a case, which occurred to M. Destendau, of a man who for nine months laboured under fistula caused by the lodgment of a piece of bone.* Petit extracted a needle, which for six months had occasioned excruciating pain during defecation. In another case he removed a small triangular bone which had been the cause of great pain for several months. In a third case there was extensive mortification around the anus, from the lodgment, of ten days' duration, of a chicken bone. In a fourth case he opened an abscess which contained shot and feculent matter.† Shearman‡ relates a case of a fish bone being swallowed and discharged twelve months afterwards from an abscess by the side of the anus. Harrison§ describes a case of an abscess resulting from an apple core, swallowed eight

* "Observations de Chirurgie," tome ii., observation lxxxvi., p. 222. Paris, 1731.

† "Traités des Maladies Chirurgicales," Ouvrage posthume de J. L. Petit, tome ii.

‡ Philos. Trans. 1763.

§ "Memoirs of the Medical Society of London," vol. v. 1796.

months previously. Sir B. Brodie * relates the following, "I was sent for to a gentleman with a very large abscess formed by the side of the gut. He suffered a great deal of local pain; had a very frequent pulse, brown dry tongue, very hot skin, and typhoid symptoms. I opened the abscess, and let out a quantity of putrid offensive matter, which sufficiently explained the typhoid symptoms under which the patient laboured. And after I had opened the abscess, I introduced my finger into the cavity, and sticking across it I found a long fish bone which I extracted. The fish bone had evidently penetrated through the mucous membrane of the bowel, and in all probability some small portion of feculent matter had passed by the side of the fish bone, thus accounting for the remarkable putridity of the matter." Mr. Green tells of a case in which the pelvis of a snipe was removed from a large abscess.

The symptoms and consecutive consequences of abscess in this region are much increased in severity by the implication of the integrity of the intestine; much however will depend upon the habits and constitution of the patient. The precise situation of the abscess will exercise considerable influence; if it exist on either side of the anus the symptoms will be less severe than when it is situated anteriorly, as other

* "Medical Gazette," vol. xvii., page 27.

important and very sensitive parts are then involved and their functions interfered with ; thus, in the male, the neck of the bladder, the prostate gland, and the urethra will be affected, and the flow of the urine interrupted. In the female, abscess in the anterior walls of the rectum, if allowed to pursue its course may open anteriorly into the vagina, and posteriorly into the rectum, and induce the very distressing condition of recto-vaginal fistula.

It is not always easy by touch to satisfy ourselves of the existence of pus in this region ; readily to detect fluctuation, it is necessary to possess in an eminent degree the "tactus eruiditus," "a gift of rare value, perhaps partly innate, yet doubtless capable of being acquired by the education of the finger and the judgment."* The difficulty arises from the elasticity of the cellular tissue, somewhat simulating fluctuation, and also from the depth from the surface at which the matter is often formed. In the latter case, we may not be able to gain any information by the appearance or by the touch of the external parts ; but by introducing the finger into the rectum, we shall be able to detect it bulging into and diminishing its capacity ; if fluctuation is not distinct, and there be any doubt about it, two fingers of the one hand should be

* "Principles of Surgery," by James Miller, F.R.S.E. Second Edition, 1850. P. 208.

introduced, and made to press the suspected abscess outward, whilst, with the fingers of the other hand, counter pressure is made, and we shall thus be able to ascertain with greater certainty the presence of fluid.

When symptoms of the formation of acute phlegmonous abscess exist the patient should confine himself to the horizontal position, leeches should be applied to the part, followed by hot fomentations and emollient cataplasms. If the patient be robust and plethoric, general blood-letting may be necessary, particularly if much fever exist; the bowels must be opened by mild laxatives, drastic purgatives being avoided as they would be productive of more harm than good, by determining blood to the rectum, and inducing violent straining and disturbance of the surrounding structures: the diet must be low and unstimulating in quality; diluents, which may be freely allowed, will be beneficial in reducing the feverishness. Should there be any difficulty of micturition, the warm hip-bath must be had recourse to, and if retention of urine occur, warm anodyne enemata must be administered, should the warm-bath not be sufficient to overcome it; if these fail to afford relief, the catheter must be used before the bladder becomes over distended.

We must not be too sanguine in adopting these

means to prevent the formation of pus, though we shall occasionally succeed in doing so; yet, if we do not, we shall have lessened the force of the morbid action. When it is evident that the formation of matter cannot be prevented, comfort and benefit will be derived by the applications of hot fomentations and warm cataplasms, from their soothing and relaxing effects on surrounding parts. As soon as there is sufficient reason to suspect the presence of pus by the accession of rigors, by detecting fluctuation, or by a feeling of bogginess in the centre of the hardened part, a free incision must at once be made; waiting till the superimposed tissues are thinned, and pointing of the abscess takes place, is a practice to be avoided, as the cavity of the abscess will increase, and there will be a greater probability of the bowel being denuded, or a communication being established by the formation of an opening for the exit of the matter through it, in which case fistula in ano is certain to be the result.

Opening an abscess is a very simple operation, and easily accomplished; but having frequently witnessed the infliction of unnecessary pain by the incision being made improperly, I may be pardoned here saying a few words on the manner in which it ought to be done. A variety of instruments, of different forms, are sold in the shops, under the title of abscess

lancets; but not one of which is half so good as a simple straight bistoury, with a fine point and smooth sharp edge; it should be held lightly between the thumb and first two fingers of either hand, if the operator be ambidextrous, so that in the case of any unsteadiness or sudden movement on the part of the patient, the hold may at the moment be released. The blade of the bistoury, held perpendicularly to the surface, should be gently pushed into the soft parts till the point has entered the suppurating cavity; this will be ascertained by the cessation of resistance to its onward progress, and by the freedom of motion admitted, also by the matter welling up by the side of the instrument; after the point has been made to penetrate a sufficient depth, the handle should be inclined somewhat, and, by a slightly sawing motion, the incision carried to the requisite extent. By observing this method, the pain of the operation is much lessened. Abscesses are frequently opened with an ordinary lancet, which is inserted and made to cut its way out by elevating the point; this occasions much pain in consequence of the skin, the most sensitive part of the body, hanging and dragging on the edge of the instrument. In many books the expression, a plunge of the lancet or bistoury, is made use of; a surgeon's knife should never be plunged anywhere, no saving of time or pain is

effected by such a procedure ; the limits of the puncture must thereby be uncertain ; and the walls of an abscess are liable to be transfixed, or parts wounded that it would be most desirable to avoid.

When an abscess is deep-seated by the side of the rectum, and a considerable thickness of tissues exists between it and the external surface, advantage will be gained by endeavouring to make it bulge, by introducing the fingers into the bowel in the same manner as when making an examination ; the knife is then to be steadily carried down to it, and, the point having entered the cavity, the incision of the extent requisite is to be made at once. Some surgeons, after puncturing the cavity of the abscess, with a sharp-pointed knife, prefer enlarging the wound with a probe-pointed bistoury.

In the subacute abscess, Dr. Bushe advised several small punctures instead of one free one. I think most surgeons will be inclined to practise the latter. I have seen buboes treated in a hospital by a series of small incisions or punctures, under the idea of preventing any scars after cicatrization, but the plan was always unsuccesful, the matter not finding a free outlet; sinuses were formed, and the vitality of the integument impaired, rendering it necessary to lay the several openings into one, or to destroy the

tissues by potassa fusa; and the same results would follow opening an abscess elsewhere, if the like plan were adopted.

In gangrenous abscess free incision is absolutely requisite that the sloughs may readily be discharged; this form resembling carbuncle in character, in there being a considerable destruction of the cellular tissue.

After the evacuation of the contents of an abscess, a warm poultice must be applied; the horizontal position must still be preserved, and the bowels kept easy by laxatives. The diet allowed may be better then when resolution was being attempted, but it must not be stimulating or heating; beer, wine, and spirits, should be prohibited, except in the grangrenous form of abscess, when they will probably be requisite, from the debilitated condition of the patient.

As there is greater disposition in the integument to heal than in the cellular tissue, care must be taken to prevent the closure of the external opening before the cavity has healed from the bottom; this is to be done by inserting a slip of lint between the lips of the wound, but the whole cavity is not to be crammed as was once the custom, and is still frequently practised on the continent.

After opening a traumatic abscess, if the presence of ball, splinter of bone, portion of the dress, or any other foreign substance, can be detected, it must of course be removed.

CHAPTER XIII.

FISTULA IN ANO.

An abscess formed in the ischio-rectal fossa, although opened early by free incision, and before the cavity becomes greatly distended with pus, frequently will not heal; it may fill up and contract to a certain extent, but it does not become entirely obliterated, a narrow tract remaining indisposed, from various causes, to yield further to reparative action without surgical interference. It is this sinus which constitutes the affection designated fistula in ano.

The disturbance the part is subject to whenever the bowels are moved, and the action of the sphincter are assigned by most surgeons as the reason why the healing process is arrested; but may it not be attributed, with more reason, to the nature of and the several disadvantageous circumstances attending on an abscess in this locality, such as the depending position, the numerous veins that exist there, and their liability to congestion, all of which

tend to retard the process of granulation and cicatrization? Moreover, when these phenomena are slow in their progress, the surface of the internal cavity assumes a peculiar organization, which, save that it is destitute of villi, somewhat resembles mucous membrane in structure and function, and the inaptitude of the opposed surfaces to unite. It is not in the neighbourhood of the rectum alone, but in other situations also, that we find sinuses form, when the healing process is tardy. In complete fistula in ano, the passage of particles of the less solid feculent matter, and the gases generated in the intestinal canal, will also prevent the healing process. Those who maintain the opinion that the action of the sphincter is the chief cause in preventing reparation, argue, *à posteriori*, that division of the muscle, whereby it is set at rest for a time, effects a cure; may not the successful result rather depend upon laying the sinus freely open, as when we have recourse to the same plan of proceeding in the treatment of sinuses occurring in other situations?

Fistulæ in ano are described by most writers as perfect—fistulæ ani completæ,—and imperfect—fistulæ ani incompletæ—the former are those which have both an opening into the intestine and one externally; the latter have but one opening, which may either be internally in the mucous membrane of the intes-

tine, or externally in the integument. When a fistula has no communication with the cavity of the bowel, it is called a blind external fistula, and when the opening exists only within the anus, and there is no external communication, it is known as a blind internal fistula. Blind external fistula is very rare, an internal opening almost always existing if the abscess has degenerated into that state to which the term fistulous may properly be applied. The opening into the intestine may be very small, or, from the sinuosity of the fistula, we may be unable to detect it on a first examination, yet on a second or third exploration, conducted with care and a due consideration of the position it is most likely to occupy, and the employment of a suitable probe, it will probably be discovered.

A difference of opinion exists between several eminent surgeons as to the formation of the internal opening in complete fistula. Sir Benjamin Brodie says, "I believe that this is the way in which fistulæ in ano are always formed, namely, the disease is originally an ulcer of the mucous membrane of the bowel, extending through the muscular tunic into the cellular membrane external to the intestine ; and I will state my reasons for entertaining that opinion. The matter is of great importance as a question of pathology, but it is one of great importance, as I

shall show, by-and-by, in connexion with surgical practice. It is admitted by every one, that in the greater number of cases of fistulæ in ano, there is an inner opening to the gut as well as the outer opening; and I am satisfied the inner opening always exists, because I scarcely ever fail to find it, now that I look for it in the proper place, and seek it carefully. I have, in a dead body, examined the parts where fistulæ had existed several times, and in every instance I have found an inner opening to it. This affords a very reasonable explanation of the formation of these abscesses; it is almost impossible to understand, on any other ground, why suppuration should take place in the vicinity of the rectum more than in any other part of the body, and why the cellular membrane there should suppurate more than cellular membrane elsewhere. Moreover, the pus contained in an abscess near the rectum, scarcely ever presents the appearance of laudable pus, it is always dirty coloured and offensive to the smell; sometimes highly offensive, and occasionally you find feculent matter in it quite distinct. There is no reason why an abscess, simply formed in the cellular membrane, should smell of sulphuretted hydrogen; but there is a good reason why it should do so if it be connected with the rectum.

"This being the case, it is easy to understand why

these abscesses do not heal. The least quantity of mucus, even from the gut, or of feculent matter issuing into the cavity of the abscess, is sufficient to cause irritation, and to prevent it healing; and I have, more than once, in the living person, been able to trace the progress of the formation of one of these abscesses. For example, I was sent for to see a lady who complained of some irritation about the rectum, and on examining it, I found an ulcer on the posterior part. I ordered her to take Ward's paste, confect. piperis nigri, or cubeb pepper, I forget which. A month afterwards she again sent for me, and I found there was an abscess. I opened it, and from the outer opening a probe passed into the gut through the ulcer, which had been the original cause of the disease. The original opening of an abscess is generally very small indeed, but occasionally it is large, and when the ulceration has proceeded to some extent, large enough to admit the end of the little finger. The inner orifice is, I believe, always situated immediately above the sphincter muscle, just the part where the fæces are liable to be stopped, and where an ulcer is most likely to extend through both tunics." Mr. Syme* remarks, "I do not hesitate to affirm, that when a fistula in ano is formed, the mucous membrane always remains entire in the first

* Op. cit. page 10.

instance, and is never perforated until after suppuration has taken place. M. Ribes* presumed that inflammation and ulceration of piles was the common origin of fistulæ in ano; he says, "In one hundred cases of fistula of this part, ninety-nine are formed by this procedure, and have their origin from this cause." There can be no doubt that perforation of the intestine takes place both from within and without; but however interesting the question may be, pathologically considered, it does not affect the plan of treatment to be adopted. Practically, the more important subject is the situation of the internal opening, as it is essentially necessary to the success of the operation that the whole of the parts intervening between the two openings should be divided; and unless the internal opening is searched for in the right direction it will most probably escape detection; and from this cause many complete fistulæ have been considered to be incomplete, or blind external fistulæ. But the greater evil arising from the inaccurate knowledge of its usual locality was, that surgeons were induced to divide the intestine much higher than was necessary; and frequently, from the internal opening not being included in the incision, the disease returned, or the wound would not heal. To M. Ribes

* "Quarterly Journal of Foreign Medicine and Surgery," vol. ii. 1819, 20.

attaches the merit of investigating the question, and showing that the internal opening is never at a greater distance than an inch and a quarter from the anus. Sabatier first called his attention to the fact. Ribes examined the bodies of seventy-five people who had fistula at the period of their death ; in the majority the internal opening was just above the point of junction of the mucous membrane of the intestine and integument of the anus ; and not in a single instance did he find it situated at a greater distance from the anal margin than five or six lines. Since the publication of the result of his observations, they have been verified by several eminent surgeons, yet the practical deductions therefrom are not always at the present day properly considered or acted upon by all practising the surgical art.

The symptoms of fistula in ano are not always very acute, occasionally there is great pain, but more frequently a feeling of uneasiness only about the anus is complained of, with more or less tenesmus at stool and difficulty in the evacuation, particularly if the bowels are costive, or the function of the digestive organs deranged ; in complete fistula in ano, and in the blind internal form of the complaint, the evacuations are smeared with pus and mucus, perhaps also slightly with blood. One, and sometimes the chief, source of annoyance to a

patient with fistula is, the discharge, in a greater or less quantity, of purulent or muco-purulent matter, soiling his linen, making it wet and uncomfortable, and producing excoriation of the nates. In complete fistula he is further annoyed by the escape of flatus and mucus from the intestine, and should the fistulous channel be very free, feculent matter will also be expelled. Besides these symptoms, the minds of many people are affected with an impression of physical imperfection and weakness in their organization, rendering them miserable and unhappy. As in other diseases affecting the rectum, various sympathetic pains are experienced; they are referred to the back, the loins, and the bottom of the abdomen, pain extends down the leg and to the foot, which is not unlikely to be attributed to sciatica, unless the history of the case is carefully inquired into.

The external and internal openings differ in character according to the duration of the disease, and the cause that has given rise to it. In some cases, especially in phthisical patients, the opening will be prominent, and the edges hard and round. In others the aperture will be indicated by a crop of pale and flabby granulations, prone to bleed from slight violence done to them. If the abscess which originated the fistula was of a gangrenous character, the open-

ing will most likely be irregular, and the surrounding skin livid and undermined, and its vitality reduced by the destruction of the subjacent cellular tissue with the blood-vessels that ramified therein. In many instances both the internal and external openings will be very small, and liable to escape notice in a superficial examination ; when such is the case, their position will most readily be detected by making pressure on the surrounding parts, and causing the matter to exude, or the fistulous track may be felt as a cord under the integument.

Generally there exists but one internal opening, and that is within five or six lines of the margin of the anus as before stated, but now and then a second will be found ; though some writers maintain such is never the case, yet others of undoubted ability and veracity have stated they have met with instances where a second, and in one instance a third, was present. We meet not infrequently with several external openings which arise from the abscess having been allowed to pursue its own course and burst ; if it has been of the gangrenous form, it is more than probable there will be more than one external opening, or the several openings may depend on the formation of distinct abscesses at separate times, which may or may not communicate with each other,

The track of a fistula is not always direct, but in many cases is tortuous, sometimes it will be found coursing just beneath the integument to the margin of the anus, then passing upwards immediately under the mucous membrane, and opening into the rectum, or it will pass through the fibres of the sphincter muscle, in which case the passage of the probe may be impeded by its fibres, should the exploration produce spasmodic action. Sir Astley Cooper * mentions having examined the body of a man, who died of a discharge from a sinus in the groin, and who also had a fistula in ano; he traced the sinus to the groin, under Poupart's ligament; it then took the course of the vas deferens, and descended into the fistula in ano.

The cavity of an abscess may extend considerably above the internal opening of a complete fistula, even for three or four inches. After gangrenous abscess, the bowel is sometimes extensively detached from its connections with the adjacent tissues, and what is termed a horse-shoe fistula will be formed, that is, a communication will exist around the posterior part of the rectum. A pathological preparation in the museum of St. Thomas's Hospital shows this condition

* Lectures of Sir Astley Cooper, Bart., on the "Principles and Practice of Surgery, with Notes by Tyrrell," vol. ii. p. 326.

of the parts, and there are others in several of our museums.

When a patient complains of symptoms of fistula, a careful examination must be made ; if the patient be a male, he should be desired to lean over the back of a chair, or rest with his elbows on a table, but if he be nervous, or the patient a female, it is better to place him or her on a couch or bed, with the buttocks projecting, and the knees drawn up toward the chin. The nates being separated, the external opening of the fistula must be sought for ; if it be not evident to the eye, pressure must be made with the finger by the side of the anus, especially where any hardness can be felt, when most likely matter will be made to ooze out, and thereby indicate its situation. According to the side on which the fistula existed, the forefinger of the one hand, being previously oiled, must be introduced into the rectum, a probe slightly curved is then to be inserted into the external opening, and carried gently on ; in the female it must be directed almost transversely, as in them the anal concavity is less than in men. Varying the position of the point of the probe, according to the resistance it meets with, we shall soon be able to discover the internal orifice, or feel the end of the probe through the intestine, where it is denuded, and where the internal opening would be, were the fistula complete.

It is necessary to bear in mind the usual situation of the internal opening, or the point of the probe may be too much elevated, and carried above it, and the surgeon commit the error of supposing he is unable to detect it in consequence of the height at which it is situated, or that the fistula is of the blind external form.

In making the exploration, no force should be applied to the probe, or it may be thrust through the walls of the sinus into the loose cellular tissue surrounding the gut, and a very erroneous impression of the course of the fistula obtained. It must be recollected, that a probe is an instrument not to be directed with an absolute control, but one from which we are to gather information: it is to guide and instruct us. The probes I am in the habit of using are fashioned like the annexed woodcut, with a flat handle, which, however, is not designed that the instrument may be grasped with greater firmness, but for the purpose of affording a clear idea of the relative direction of the point when hidden from view in the cavity of the sinus. The internal opening may often be detected by those

whose sense of touch is acute, either as a slight tubercle, if the sinus be callous, or by feeling a slight depression at the point where it exists.

It is no wonder that our ancestors entertained the greatest dread of fistula in ano, and considered it one of the most formidable of diseases, when we think of the barbarous proceedings which were had recourse to in its treatment. With the term fistulous was always connected an idea of callosity or diseased condensation and alteration of the structure of parts which could only be removed either by cutting instruments or caustic, and severe were the tortures the unhappy sufferers were subjected to. Some surgeons, fearing hæmorrhage by excising the fistula, made use of the most active escharotics, whereby they laid the cavities of the rectum and fistula into one, while at the same time they supposed the callosity to be wasted and consumed.

Dionis* tells of one Le Moyne, at Paris, who acquired great reputation for the cure of fistulæ: "His method consisted in the use of caustics, that is to say, with a corrosive unguent, with which he covered a small tent, which he thrust into the ulcer; by which he daily, little by little, consumed the circumference, taking care to enlarge the tent daily; so

* "A Course of Chirurgical Operations and Demonstrations in the Royal Garden at Paris," published A.D. 1733, p. 224.

that by the widening of the fistula, he discovered its bottom. If he found there any callosity, he corroded it with his ointment, which also served to destroy the coney burrows; and at last with patience he cured many. This man died old and rich, by reason he made his patients pay very well for their cure, in which he was in the right; for the public value things no otherwise than in proportion to the sum which they cost. Those who were affrighted at the thoughts of the scissors, threw themselves into his hands, and though the number of rascally pretenders is very great, they never yet want practice."

Others who had less dread on the subject made use of various formidable instruments for cutting out the fistula. A Dr. Turner, who practised somewhat more than half a century since, used an iron scoop, which he describes as made "like a cheesemonger's taster, to be thrust up the rectum, and assist in the division of it." Mr. Pott remarks, "What ideas this gentleman had of the disease, or of human sensation, I cannot imagine."

In all ages up to the present, there have not been wanting impudent pretenders, with some never failing nostrum for the cure of fistulæ, or some mysterious manner peculiarly their own, with which to delude the unwary sufferer. Louis XIV. had fistula in ano, and being unwilling to submit to the opera-

tion, various methods were proposed to him for curing the disease without incision, but being unwilling to have them tried on his own person, he caused a number of his subjects suffering from fistula, to be treated by the different plans which were suggested. Dionis* thus relates the history :—

"In the year 1686 there arose near the king's anus a small tumour, inclining towards the perinæum; it was neither inflamed; it grew slowly, and, after ripening, broke of itself, by reason that the king would not suffer Monsieur Felix, his principal chirurgeon, to open it as he proposed. This small abscess was attended with the ordinary consequences of those not sufficiently opened to admit the application of remedies to the bottom of the cavity; there was only a small orifice through which the matter run; it continued to suppurate, and at last became fistulous.

"The sole way left of curing it was manual operation; but the great cannot always be brought to yield to it. A thousand persons proposed remedies which they pretended to be infallible, and some of them, which were concluded to be the best, were tried, but none of them succeeded.

"His majesty was told that the waters of Barège were excellent in these cases, and it was also reported that he would go to those waters; but before taking the journey, he thought fit to try them on several patients; four persons were found who were afflicted with the same distemper, and sent to Barège at the king's expense, under

* Op. cit. p. 228.

the direction of Monsieur Gervais, chirurgeon in ordinary to his majesty; he made the necessary injections of this water into their fistulas for a considerable time, and used the proper means for their cure, and at last brought them all back, as far advanced towards that end as when they first went thither.

"A woman reported at Court that, going to the waters of Bourbon, in order to be cured of a particular distemper, she was by the use of them cured of a fistula, which she had before she went thither. One of the king's chirurgeons was sent to Bourbon with four other patients, who returned in the same condition they went.

"A Jacobine friar applying to Monsieur Louvoy, told him that he had a water with which he cured all fistulas; another boasted of a never-failing ointment, and yet others proposed different remedies, alleging the cures which they pretended to have done. That minister, determining to neglect no means in order to the procuring a restoration of a health so important as that of the king, caused several chambers to be furnished, in which he placed persons afflicted with fistulas, and caused them to be treated pursuant to the several methods of the boasting pretenders to cure them in the presence of Monsieur Felix.

"A year was spent in these various essays, and not one patient cured.

"Monsieur Bessiere, who examined the indisposition, being asked his thoughts by the king, freely answered his majesty, that all the remedies in the world would prove vain without manual operation.

"At last the king, to whom Monsieur Louvoy and Mon-

sieur Felix gave an account of what had passed, seeing no hopes of being cured otherwise than by operation, on which Monsieur Felix continually insisted, determined for it; but would not acquaint any person with his resolution; he delayed it till his return from Fontainbleau, and one morning had it performed when nothing of the nature was suspected by the courtiers, who, going to attend the king's levee, were informed that he had undergone the operation, and resolutely suffered all the incisions which Monsieur Felix thought proper to be performed.

"This happened on the 21st of November, 1687. Monsieur Felix, to whom the king had left the liberty of appointing what chirurgeon he pleased to assist him, chose Monsieur Bessiere, who was accordingly present at this operation, where besides were only Monsieur de Louvoy, and the two physicians, Dr. Daquin and Dr. Fagon. The cicatrizing was very well managed, and the king perfectly cured. His majesty also royally recompensed all those who had rendered him service whilst under this indisposition; he gave to Monsieur Felix fifty thousand crowns; Monsieur Daquin one hundred thousand livres; Monsieur Fagon twenty-four thousand livres; Monsieur Bessiere forty thousand livres, and to each of his apothecaries, in number four, twelve thousand livres; and to one Cage, Monsieur Felix's apprentice, four hundred pistoles. The sum total of these fees equalled £14,700."

If the health of the individual is good, and all circumstances are favourable, a fistula may sometimes be made to heal without an operation. Sir Astley

Cooper* mentions, in his lectures, two cases which were cured by injections. I have succeeded in several instances in healing them without operation, though the cure has been somewhat tedious. When a patient objects to the necessary operative proceedings, we may try other means; constant pressure must be made upon the track of a sinus, which should be injected with a solution of sulphate of zinc, or copper, or nitrate of silver. When the cavity of the fistula has been hard and callous, I have cauterised it throughout its course with nitrate of silver. The following is the manner of doing it; having ascertained the precise direction and sinuosities of the fistula, a probe is to be bent into the form that will most readily pass; it should then be coated by dipping it into the caustic melted in a watch-glass over a spirit-lamp; thus armed, it must be rapidly passed into the fistula, and allowed to remain a few seconds, and then withdrawn; a simple poultice or water-dressing should be applied for the first twenty-four hours, and after that pressure must be made along its course. During the treatment the bowels must be kept open, and soap and water used to the anus night and morning. By these means we shall sometimes succeed in healing the fistula; but it is a plan not to be relied on. An isolated case

* Op. cit. vol. ii. p. 334.

will occur now and then, in which a fistula will close without any surgical interference. Two years ago a patient applied to me with complete fistula of the right side ; the external opening was about an inch and a quarter from the anus, and the internal one between two and three lines from the anal orifice. At the time he was under the treatment of Dr. Quain, at the hospital for Diseases of the Chest at Brompton, his lungs being seriously affected by tubercular deposit. On consulting with this gentleman, we agreed it would not be advisable to do anything for the fistula, fearing to aggravate the pulmonary affection. He was directed to wash the anus with soap and water night and morning, and also after defecating, and not to allow the bowels to become constipated. He continues under the judicious medical treatment of Dr. Quain, and his health at the present time is greatly improved. The fistula healed about six months after I first saw him, and he has since continued free of any affection in the anal region.

We must not delude ourselves or our patients with the idea that fistula can often be cured without an operation ; however we now have the satisfaction of knowing that the formidable proceedings of former days are not requisite, and that an incision of limited extent is all that is necessary ; the operation occupies only a few seconds, and causes comparatively little

pain. But there are some persons whose nervous susceptibilities are so exalted, and the dread of cutting instruments so great, that no reasoning or persuasion will induce them to consent to the best and easiest plan of treatment. Under these circumstances recourse may be had to the ligature. In past time it was frequently employed, but the tediousness of the process, when the ligature had to ulcerate through any thickness of parts, and the irritation that frequently attended its use, led to its being discarded. Mr. Pott* thus expresses his opinion. "The terror which a cutting instrument necessarily carries with it, the fear of a flux of blood from some considerable vessels, together with a strange, nonsensical opinion, that a gradual division of the parts was followed by a more sound cure, than an immediate one by cutting, produced the coarse, unhandy method by ligature. . . But as the whole operation is, on every principle of ease, expedition, safety, or certainty, unfit for practice, it would be an abuse of the reader's patience to dwell any longer upon it." Sir Astley Cooper says, "Timid persons prefer this mode of treatment to the knife, although in the one case the irritation is long continued, and in the other, the pain is only of a few minutes' continuance.

"That it succeeds in some instances I have known,

* Op. cit. vol. iii. pp. 125, 126.

for some of my patients, having submitted to this remedy, returned to me well.

"My objection to it is, that the irritation it produces is liable to occasion other abscesses, whilst healing that for which it is employed."

Mr. Luke revived the use of the ligature, and invented several instruments for passing and tightening it; in the first volume of the "Lancet" for 1845, are drawings and descriptions of these; he also recites nine cases treated by this method, but I believe he now regards incision preferable to it. I have on one occasion had recourse to the ligature as the patient would not consent to any other operation, and a cure was effected. The ligature was kept tense by attaching an india-rubber ring, such as is now generally used to secure papers together, which being put on the stretch, was fastened to the buttock by a strip of plaster.

Since Mr. Pott propounded his principles of treatment of fistula by simple division, and proved the soundness of those principles in a very extended field of public and private practice, the objectionable operations formerly in vogue, have in this country been almost entirely set aside. Yet some surgeons may still prefer the principles and practice of our forefathers. Mr. Syme* remarks, "As was to be

* Op. cit. pp. 19, 20.

expected, however, many practitioners clung to the methods in which they had been educated ; and even in the present day there are some who, whether from imbibing the bad example thus transmitted to them, or from an unhappy peculiarity of judgment, still prefer the old and unjustifiable process of excision. I have seen an eminent professor of surgery in Paris cut out the fistula, and understand that he continues to pursue this practice. Some years ago a middle-aged woman came under my care in the Surgical Hospital, on account of a recto-vaginal fistula, and stated that the complaint commenced with a fistula in ano, for which she had had an operation performed by the surgeon of a provincial hospital, who cut something out and laid it on the table, since which there had been a communication between the rectum and vagina. More lately, a gentleman from the north of England, applied to me on account of some unpleasant consequences resulting from an operation, or rather, series of operations, to which he had been subjected, on account of fistula in ano. His principal complaint was inability to retain the contents of his rectum, which, notwithstanding the resistance of a carefully constructed bandage, were wont to be suddenly and involuntarily discharged, so as to cause great discomfort, and constant apprehension. Though prepared to find something far wrong, I was not less

surprised than shocked, upon inspecting the seat of the disease, to see no appearance of an anus, but instead of it, a deep excavation, at the bottom of which the mucous coat of the bowel presented itself to view, completely divested of the sphincter. From these and other facts of the same kind that might be mentioned, I fear it must be concluded that the plan of excision is still not entirely abandoned; but, feeling assured that those who persist in adhering to it, notwithstanding all that has been said and written on the subject, would not have their views altered by any argument in my power to use, I shall leave them to follow the progress of improvement at their own leisure."

When it was the custom to divide the rectum throughout the entire extent of the fistula, a simple knife was not by many deemed sufficient, and "ingenious, mechanical, and whimsical people have busied themselves in inventing instruments for this purpose: the syringotomy, the cultellus fulcatus, the probe razor, &c., have at all times been in use; scissors also of various kinds, both straight and crooked, have been employed in this operation; the three first may be made to serve the purpose very well; but to the last (the scissors) there is in this, as well as in almost every operation in which they are frequently used, a palpable objection, viz., that by pinching at the same time they cut, they occasion a great deal of

unnecessary pain. They are, I know, in great use with many, who if they were deprived of their probe scissors, would think themselves incapacitated from doing business ; but they are, upon all occasions where mere division is required, a very bad instrument ; they may assist an awkward or an unsteady hand, but they are more fit for a farrier than for a surgeon."

"In all chirurgic operations, the instruments made use of cannot be too simple, nor too keen."*

The importance and advantages of the observations of M. Ribes regarding the situation of the internal opening of a fistula, and the principles deduced therefrom, namely, that it is not necessary for effecting a cure of the disease, to carry the incision to a greater height than where it exists, or where the mucous membrane is denuded and thinned, if there is no internal opening, is now fully established. Mr. Syme, the eminent professor of clinical surgery, of Edinburgh, has for years inculcated and acted upon these principles in his practice, and testifies to their perfect success : I have never carried my incisions higher, and have never been disappointed in the result. But some surgeons of great ability and eminence in the profession and writers of high authority have pursued the practice of Mr. Pott. Sir Astley Cooper † advises, "If any portion of the sinus remain above the open-

* Pott, Op. cit. pp. 111, 12. † Op. cit. page 330.

ing into the rectum, it should be divided with the probe-pointed scissors." Mr. Copeland carried his incisions to the bottom of the sinus, and expresses surprise that Mr. Pott, in his treatise on fistula in ano, should have passed unobserved the hæmorrhage that sometimes takes place from the incision and the difficulty of arresting it ; and he further says, " I will venture to say that it has occurred to almost every surgeon who is in the habit of performing this operation."*

The same author gives the following cases in illustration.

" A carpenter, about thirty years of age, had the operation for fistula in ano performed on him in the year 1803. There were two extensive sinuses in the nates divided, but the principal one extended above three inches up the side of the gut, and then perforated it ; this also was laid open. There was considerable hæmorrhage at the time of the operation ; but the patient fainted, and the bleeding stopped ; and when the wound was dressed, he went to bed. After he had been in bed about an hour, the hæmorrhage returned, and the bleeding artery was so high up the sinus, as to be entirely out of the reach of the needle and ligature ; the gut, therefore, and the wound were filled up with compresses of lint, wet with spirit

* " Observations on the Principal Diseases of the Rectum and Anus," by Thomas Copeland. 1824. Page 86.

of turpentine ; and for some time, it was thought that this mode of compression had succeeded in stopping the hæmorrhage ; but, during our fancied security, his pulse became hardly perceptible, his lips pale, and the whole body was in a cold sweat. He was now supported by wine and other cordials ; and in a short time the hæmorrhage burst out again, with as much violence as ever, and continued for more than an hour. All the compresses were now removed, the rectum cleared as much as possible of coagulated blood, and the wound left without dressings. The hæmorrhage stopped, and did not return again, but very large quantities of coagulated blood were evacuated with the fæces for three days afterwards. He was, as may be supposed, extremely debilitated by this loss of blood, but finally recovered his strength, and his fistula was dressed and cured in the usual way."

" A gentleman, about fifty-six years of age, who had been subject to complaints of the liver, and frequent hæmorrhage from the nose, had the operation for fistula in ano performed. A sinus leading into the rectum, about an inch from the anus, was first divided, and then another passing towards the os coccygis ; the opening of this last discovered another sinus penetrating the gut about an inch or rather more above the former one which had been divided. This was also laid open, and the wound bled very freely ;

but the orifice of the bleeding vessel could not be discovered. In a short time the hæmorrhage diminished, and the wound was dressed in the usual way, by introducing a piece of lint from the gut into the divided sinus. There was some degree of hæmorrhage nearly the whole night, and in the morning a small artery was discovered, and a ligature passed round it; but the bleeding continued and increased very considerably, when he had an evacuation in the middle of the day. The wound was cleared of all the dressings, together with the coagulated blood, and the hæmorrhage ceased.

During the succeeding night there was no bleeding, but in the morning it returned when he had a stool, and he lost about four ounces of florid fluid blood. The wound was now filled with lint, wet with Ruspini's styptic, which happened to be at hand; there was a little hæmorrhage during the day, and in the following night, which, however, he passed tolerably well, and the wound began to suppurate plentifully. But when he had an evacuation of the fæces, the bleeding again returned, though in a less degree, and for many days he lost some ounces of fluid blood every time he passed his stool. At last it ceased altogether, the wound went on well, and in about six weeks was quite healed."*

* Op. cit. pages 159 to 163.

Mr. Liston,* was in the habit of dividing the sinus to the bottom, and on several occasions, when I have assisted him, I have been obliged to make pressure for some time to arrest the hæmorrhage. Mr. Fergusson† does not appear to appreciate the advantages of a limited incision in fistula in ano, as, after speaking of the position the surgeon should place himself in, he says, "He should then introduce the end of a probe-pointed bistoury through the external opening, and push it slowly along the sinus until it reaches the upper extremity. Again: ‡ "I believe it is best to open a sinus throughout." Dr. Bushe, whose practice was very extensive, divided the textures as high only as the internal opening into the rectum, and always found it sufficient for the cure.

When a patient with fistula seeks surgical assistance, and an operation is deemed advisable, the general health must be first attended to, if at all impaired, due attention being paid to the functions of the liver, kidneys, and skin. On the morning previously to the operation, the bowels should be acted upon by a mild

* "Elements of Surgery," by Robert Liston. Second Edition. Page 564. "Practical Surgery," by Robert Liston. Fourth Edition. Page 438.

† "Practical Surgery," by William Fergusson. Third Edition. P. 747.

‡ Page 748.

cathartic, and an enema of warm water or thin gruel administered; the operation is then to be performed in the following manner. The patient kneeling on a chair, and resting on the back of it, or leaning with his elbows on a table, or lying on a bed or couch, with his knees drawn up, and the nates projecting, an assistant separates the buttocks, and the surgeon, introducing the fore-finger of the right or left hand into the rectum, according to the side on which the fistula exists, makes himself familiar with its track and position by using the probe as previously directed; having accomplished this, he passes the blade of a probe-pointed curved knife into the external orifice along the course of the fistula, making it emerge through the internal opening, the point being hitched by the finger in the rectum; both hands are then depressed, and with a slight sawing motion the intervening tissues are divided, and the knife and finger brought out together. If the surgeon be timid, or unaccustomed to operate, or the fistula so tortuous that the knife cannot readily pass along its track, a grooved silver director, or strong probe, may be used; it must be bent as required, and, having been introduced through the opening in the integument and that in the bowel, the end is pulled down, and made to protrude at the anus; the parts are then to be divided by passing a sharp-pointed curved bistoury

along the grooved channel, and the operation is finished. This plan occupies a few more seconds in performing it, and occasions somewhat more pain than the other.

When more than one external opening exists, or sinuses extend towards the hip, the whole of them must be laid open at the same time, or a second operation will be necessary, which the patient may not be willing to submit to, and the cure will be protracted. In the writings of a late very distinguished surgeon, it is recommended to lay open and heal the sinuses in the buttock before dividing the fistula ; but no possible advantage can be derived thereby.

When the incisions are completed, a strip of lint must be inserted between the divided surfaces, to prevent their uniting again before granulation takes place from the bottom ; but the wound must not be crammed, as is sometimes done, or irritation will be produced. If it is thought desirable, an opiate may be administered after the operation, rather to prevent the action of the bowels for two or three days than with any other intention.

The first dressings are not to be removed by the surgeon, but allowed to remain till the bowels act, and they will then come away with the fæces ; if they are not moved of their own accord by the third day, a dose of castor oil must be administered, and, after its

operation, the wound must be cleansed, and another piece of lint inserted. Till the wound has nearly healed, the surgeon should, each succeeding day, inject a little thin gruel so that the bowels may be kept easy ; and after their action, the dressings are to be renewed. If there be not sufficient reparative action in the part, the lint must be dipped in a weak solution of zinc or nitrate of silver, in order to excite the required degree of stimulation.

At first the patient must be confined to the recumbent position, and his diet must be spare, if he be plethoric; but if, on the contrary, his vital powers be low, we must be more liberal in the amount of food allowed, and we may also find it necessary to order a certain amount of wine or beer, and to prescribe bark and other tonics.

Bleeding is of very rare occurrence when the operation is performed in the manner just described, though it is by no means uncommon when the incision is carried unnecessarily high ; but should it occur, the finger is to be introduced into the rectum, and lint passed along it so as to fill the wound ; gentle but firm pressure is then to be maintained for a time, and it will be very rarely that anything else is required; however, should the bleeding continue, the bowel must be dilated with a speculum, and any vessel that is seen secured with a ligature. Elevating the pelvis, and

applying a bladder containing powdered ice to the sacrum and anus, will assist in suppressing the hæmorrhage.

When the fistula is of the blind internal form our method of proceeding must be different. The internal opening is then to be found ; it will be indicated by the escape of matter when pressure is made externally, or acute pain will be felt at one spot and will inform us of its position ; a probe, more or less curved, or bent at an angle if the opening is not close to the anus, must be passed into the sinus, and the end made to project against the integument; with the point of a knife an incision is then made down on it, and a complete fistula will thus be formed ; the operation is then to be finished with a curved knife as just directed.

External blind fistula, extending to the coats of the intestine, must be made into a complete one by perforation of the bowel with the knife ; the point at which this must be done is where the internal opening is usually found ; when the fore-finger is introduced into the rectum, and a probe directed along the course of the fistula, the point will be plainly felt at a particular spot where the mucous membrane is denuded and thinned. The same kind of knife as used in complete fistula is made to follow the same channel as the probe, and the point being felt by the finger placed within the anus, is pressed onward against the edge of

the nail, and by a slight motion made to cut through the intestine; the point is then depressed, and the intervening tissues divided. As the surgeon's finger is very liable to be wounded in cutting through the gut, it has been proposed to pass a wooden gorget into the rectum, and to cut on that, but if the end of the nail be presented to the point of the knife instead of the pulp of the finger, the operator will escape injury.

Savigny invented a bistoury especially for this operation, it had two blades side by side, the one having a round point, the other a sharp one, the latter being made to project beyond the former when required. The blades were passed in the usual way, and the probe point being felt pressing against the intestine, the sharp pointed blade was projected, and the bowel perforated; the pointed blade was immediately retracted, the conjoined blades being then carried through the puncture, the incision was finished as with a common bistoury. The instrument is ingenious, but not necessary to a surgeon capable of performing the operation; besides, the conjoined blades make the instrument thick and clumsy. The ordinary curved probe-pointed bistoury, recommended by Percival Pott, and known as his knife, answers every purpose, but is larger than is required; one of the size and form of the annexed figure will be found most convenient. I have the blade made somewhat thicker in the back

than the common bistoury, which renders the button at the end superfluous, and the edge at the point can be kept in better order. In using the ordinary bistoury, an accident is liable to occur by the instrument breaking; this may result from the unsteadiness of the patient, or from the density and cartilaginous induration that takes place in the tissue, when the disease has been allowed to continue for years, but chiefly depends upon the fashion the instrument-makers have of grinding the blade thinner and notching it at the termination of the cutting part. I have witnessed this accident happen to Mr. Liston; on the occasion he passed a second knife along the broken blade which fell from the wound on the completion of the incision. To guard against any inconvenience arising from such an accident, that surgeon recommended the operator always to be provided with a second knife.

By far the larger proportion of fistulæ in ano admit of remedy by the slight incision which has been

shown to be all that is requisite ; but, before performing it, or giving the patient an opinion on the probability of its affording relief, we must ascertain if any constitutional or local cause exists that may be likely to render the operation unsuccessful or disappoint the hopes of the patient.

It has already been observed that affections of the thoracic and abdominal organs predispose to this disease, which then stands only in relation of effect to the primary malady, and therefore success is not likely to attend our efforts whilst the cause remains in active force. The most common cause that will render a prognosis unfavourable regarding the result of an operation, is the patient being the subject of phthisis, in which case, if the operation be performed, the wound will not heal ; or should it do so, the probability will be, either the formation of a fresh abscess, or the aggravation of the pulmonary disease. However, it is not every case that must deter us ; we have now ample proof that phthisis is not the hopeless disease that it was formerly considered, and that after symptoms of pulmonary tubercle have existed, patients recover, and live free from any complaint for many years ; therefore, when applied to under these circumstances, if the issue of the thoracic disease be uncertain, or there is a prospect of recovery, we are not justified in withholding our attempts to cure the lesser

affection, but which in the imagination of the patient is the greater evil, and occasions much discomfort and annoyance ; besides, declining to operate, is apt to induce a state of hopeless mental depression and despondency. Though, however, the operation may be performed at the particular desire of the patient, it would not be prudent to propose or urge it in advanced phthisical cases, or the surgeon may bring great discredit on himself.

Among the causes of abscess in the anal region, was mentioned perforation of the coats of the intestine by fish bones, spiculæ of bones, and other substances which had been swallowed. An abscess thus formed, as a matter of course, will not heal so long as the foreign body is allowed to remain. The patient seldom recollects, or is even aware of having swallowed anything improper ; therefore it is only by examination with the finger or probe that the substance, whatever it may be, can be detected. The fistula is to be operated on in the ordinary manner, and if the foreign body cannot be removed without lacerating the parts, the incisions must be enlarged.

As a consequence of abscess in the perinæum, fistulous communications may be established with the rectum and urethra; this complicated form of disease is usually the result of the abscess spontaneously discharging itself into those passages,—the fascia of the perinæum

retarding its outward course—instead of its contents having been evacuated by early incisions; external openings sooner or later take place, and are situated near the root of the sacrum or verge of the anus. The patient now is in a pitiable condition; a fœtid discharge from the external orifices is a source of great misery; urine escapes from the rectum, and thin feculent matter and flatus from the urethra, not unfrequently stricture of the urethra exists with this form of disease, in which case it is necessary to dilate it before proceeding to remedy the fistulæ. The internal opening in these cases is generally higher in the bowel than in ordinary fistulæ. In operating, the same principles must be acted on as in the simple form of fistulæ; the intervening tissues between the internal opening and that nearest the anus are to be divided, then the sinus between that and the urethra is to be exposed; some dry lint is to be inserted into the wounds, and the after treatment conducted on ordinary principles. Sometimes a small fistulous communication will remain between the rectum and urethra after the wounds have healed externally, permitting a few drops of urine to escape by the bowel occasionally, and proving a source of annoyance to the patient, and causing a dread of a return of his former condition. The rectal orifice must be brought into view by the speculum ani, and the closure of the

fistulous track will be effected by passing along it a probe coated with nitrate of silver, or a wire heated in a spirit lamp, or by the galvanic current.

Fistula in ano will sometimes coexist with stricture of the rectum, in which case the internal opening will be above the constricted portion of the intestine, if ulceration and abscess have been caused by the pressure and irritation of the fæces from the resistance offered to their evacuation; but, although associated with stricture, the internal opening may still occupy its usual situation, and the fistula may have been caused either by the irritation excited by the stricture, or independent of it.

When the opening is above the preternatural contraction of the intestine, the latter must be dilated before any incisions are practised for the cure of the fistula; and when the fistula is below the stricture we shall effect but little benefit till the rectum is restored to its natural calibre.

Fistula connected with diseases of the sacrum, ilium, or pubis, cannot be benefited by incisions so long as the osseous parts remain diseased; if any portion of the bone be necrosed, it must be extracted, or be thrown off by nature, before a recovery can be looked for. Mr. Syme* mentions two cases connected with disease of bone; the one a man who had been repeatedly ope-

* "On Diseases of the Rectum." Third Edition. Pp. 54, 55.

rated on for fistula in ano, without obtaining relief; a careful examination discovered an exfoliation from the tuberosity of the ischium lying in a capsule formed by the origins of the flexor muscles of the leg. The second case—that of a young woman, who suffered from fistula in ano; a probe being felt to grate against a hard substance it was extracted, and found to be a thin scale of bone, probably detached from the arch of the pubis.

Abscess, from disease of the hip-joint in its advanced stage, usually opens posteriorly, and below the articulation, but sometimes matter will burrow and effect an opening near the anus; it is scarcely necessary to say in such a case, the operation with the hope of curing the fistula would be entirely useless.

The subjoined cases are examples of some of the more ordinary forms of fistula in ano.

Fistula in ano the effect of a kick.

A young gentleman, æt. seventeen, at one of the public schools, received a kick from a companion, which was followed by the formation of an abscess; it was allowed to burst, and, beyond keeping some lint to the part, to prevent his linen being stained, nothing had been done; during the vacation, he came under my care. I found an external opening between one and two inches from the anus; a probe passed into this could be felt by the finger in ano, in contact with the walls of the intestine which were very much

thinned; no internal communication could be discovered. Constitutional treatment was had recourse to for a few days, and after the bowels had been thoroughly unloaded, an incision was made through the sinus and bowel from the point at which it was denuded. It was deemed advisable to keep him in bed for a week; the bowels were kept easy by laxatives, and an enema of eight ounces of thin gruel injected every morning; the wound was lightly dressed, and in about three weeks had quite healed.

Fistula in ano.

Mrs. ——, æt. twenty-seven; when I was consulted she had been married six years, and had had no family. Two years previously to her marriage she experienced heat, itching, and fulness in the rectum; these symptoms increased, and after a time she occasionally lost a small quantity of blood at stool. A few months after marriage an abscess formed near the anus, preceded by heat and severe throbbing pain; she used poultices and it broke, the skin giving way in two places. Previously to the abscess bursting, she had observed by her linen, that there was a slight purulent discharge from the anus. After the matter had obtained vent she had less pain; but continued to have great uneasiness, and was annoyed by a constant discharge of pus.

On making an examination, two small fistulous openings presented, one being about an inch from the anus, and the other an inch and a quarter from the first, its direction being outward and backward; a fistulous track, extending between the two openings, could be felt like a

cord beneath the finger; at an angle with this sinus, another could be felt extending towards the bowel; a probe readily passed from the one external opening to the other, but, from the acute angle formed by the two sinuses, it could not be made to enter the bowel. At a quarter of an inch above the anal orifice, a small hard tubercle could be felt; and pressure produced some pain at this point. She had always been of a costive habit, and had not been accustomed to take much exercise. Her pulse was not quick but rather sharp, her tongue was furred and notched, and she was much troubled with flatulence; the renal secretion was disordered, there being an excess of uric acid. Medicines were prescribed to unload the bowels and improve her general health. After persevering in these for ten days the operation was performed. She had taken a dose of castor oil early in the morning, and an enema had been administered an hour before I arrived at her house, by which means her bowels had been thoroughly relieved. I first divided the sinus between the two external openings, and was then able to pass a probe through the fistula into the bowel without the slightest difficulty, the end being brought in contact with the finger of the left hand, introduced into the rectum; a small curved bistoury was made to follow the probe, and the intervening tissues divided; only a few drops of blood were lost. A piece of lint was gently inserted between the lips of the wounds; and she took half a drachm of wine of opium in camphor mixture.

On the third day, the bowels not having been moved, she took a dose of castor oil; the dressings came away

when it acted. After this the wound was lightly dressed each day, and in little more than a week she was quite well.

Fistula in ano following an abscess caused by wet and cold.

F. M., æt. thirty-five, a coachman in a nobleman's family, of moderate stature, and robust constitution. After driving the greater part of a cold wet day, he felt towards the evening a burning heat in the integument near the anus, and during the night severe throbbing pain commenced; this continued three days, when he had a slight shivering fit, after which the acuteness of the pain subsided, and resolved itself into a dull aching sensation; on the fifth day from the commencement of the attack, he applied to me. There was then very little constitutional disturbance, the tongue was somewhat furred and his skin dry. On making an examination the skin between the anus and the tuberosity of the ischium was observed to have a dusky red appearance, and fluctuation was perceptible to the touch. I made a free opening with a bistoury, and evacuated about an ounce and a half of unhealthy pus; he was desired to keep a poultice to the part, and to see me in a few days.

In a week after the abscess was opened I made a careful examination with a probe, and could not detect any communication with the bowel, there appearing to be a thickness of tissues of at least half an inch between the walls of the abscess and the bowel. He appeared to be

progressing favourably; and he was directed to keep the bowels regular, to live moderately, and to see me again in a short time.

He did not see me for several weeks, as he considered the abscess would heal in time; he had had pricking pain in the part occasionally, but not at all severe. I made an exploration with a probe, and now discovered the coats of the bowel denuded immediately above the margin of the anus. On the following day, with the assistance of Mr. Thompson, I divided the structures between the external opening and the denuded bowel. The wound was lightly dressed, and he was desired to remain in bed. When I called on the following day I was surprised to find he was out. I left word for him to call at my house the next morning, which he did; I dressed the wound, it was looking very healthy, and I desired him not to neglect seeing me till he was quite well. He came to me every morning for a few days, and he made a very rapid recovery.

Fistula in ano, and urinary fistula from abscess consecutive on gonorrhœa.

A young professional friend contracted a gonorrhœa, which he treated himself by the use of strong injections; during the time he rode much, and indulged too freely in wine. The result of these indiscreet proceedings was the formation of an abscess between the urethra and bowel; he allowed it to take its own course, and the abscess burst into the rectum and urethra, and ultimately

an opening formed in the perinæum through which some of the urine passed whilst micturating. He now thought it time to give up the case, and trust himself to other hands. He was confined to bed, appropriate medicines prescribed, and a strict regimen enforced; after some weeks his general health was improved, the tissues intervening between the perinæal opening and the one in the bowel were then divided, and the wound dressed in the ordinary way. When it had nearly filled up by granulation, a probe, coated with nitrate of silver, was passed along the fistula to the urethra, and allowed to remain a few seconds; on the following day, pressure by means of a pad of lint and a bandage was made. In about a month after the operation the parts had healed.

Fistula in ano from an abscess not being opened.

S. R., æt. thirty-four, a groom, applied at the Blenheim Dispensary, suffering from a fistula in ano. He gave the following statement of its formation:—Twelve months previously he had throbbing and heat near the fundament, and the skin became very tender if pressed; he concluded an abscess was forming, and had recourse to poultices, but several weeks elapsed before it burst; passing a stool gave him great pain; shortly after this he observed the fæces streaked with pus. He had continued the use of poultices, hoping the part would heal; he had also used various ointments and lotions that had been recommended to him, but without reaping any benefit from them.

On making an examination I perceived a small opening

in the integument surrounded by fungous granulations, situated an inch and a half from the anus; a probe passed readily from it into the bowel, and was felt about three-quarters of an inch above the margin of the anus by the finger, which had previously been introduced. His general health was good; and the case appeared one that might be healed without incision, but as he was most desirous to be cured as quickly as possible, I determined to divide the parts, which I did on the following day, having previously prescribed medicines to unload the bowels. In less than a fortnight the wound had quite healed.

Fistula in ano; several external openings and extensive sinuses.

H. E., æt. forty-one, a butler, came under my care suffering from fistula. He attributed its origin to injury of the bowel by a bone that he had swallowed, which he said lacerated his inside on its passage outward, and gave rise to an abscess by the side of the fundament; he applied poultices, and it burst in six or eight days from the time he first felt pain. He continued to poultice the part, and he was in hopes it had healed, but matter again formed and then discharged itself. This process recurred several times, and other openings formed towards the buttock. During this time he had taken various medicines, and used lotions and ointments; one gentleman whom he consulted proposed an operation, but his occupation prevented him laying up. At length, his general health failing, he was

compelled to submit himself to proper treatment. When I first saw him his countenance was sallow; the sclerotic conjunctivæ yellow; his tongue was much furred and deeply notched transversely; his pulse was soft and weak; and he had been of constipated habit for years. The integument on the left side of the anus was of a purplish red colour, and the subcutaneous cellular tissue was infiltrated and indurated; four fistulous openings existed, one was within an inch of the anus, the furthest was five inches from it; a probe directed through the nearest opening to the anus passed a considerable distance up by the bowel; by a careful exploration an internal opening was found three-quarters of an inch above the external sphincter. He was confined to his bed, and mild mercurials, taraxacum, and purgatives were prescribed; when the bowels had been thoroughly cleared out, and his countenance had assumed a brighter aspect, he took the iodide of potassium and sarsaparilla. Under this treatment the integument of the anal region became more healthy and the induration considerably diminished, but its vitality was too low to offer a hope of the healing process occurring without dividing the sinuses; I therefore laid them freely open, and also divided the tissues between the opening in the bowel and the external one. Two or three ounces of blood flowed, but no vessel required ligature. The wounds were dressed in the manner that has been directed; and, after the third day, the bowels were kept open by laxatives and enemata, and great attention to cleanliness observed. He continued the iodide of potassium and sarsa-

parilla for three or four weeks after the operation, when the iodide of iron was substituted for it.

In consequence of the condition of the tissues, and the length of time the disease had existed, it was nearly six weeks before the wounds had entirely healed.

CHAPTER XIV.

POLYPI OF THE RECTUM.

Like the mucous cavities of the nose, uterus, and vagina, the rectum is occasionally affected with growths of the nature of polypi. They vary in structure and form, and may partake of the character of the mucous polypus, the sarcomatous species, or the malignant. Sir Astley Cooper* describes those observed by him as resembling a worm or leech in form, vascular, and of a deep red colour. Dr. Bushe† thinks the mucous species the most common. Mr. Syme‡ says the disease presents itself in three different forms: the first being similar to those described by Sir Astley Cooper; in the second the growth is soft, vascular, prone to bleed, lobulated,

* "The Lectures of Sir A. Cooper, Bart., on the Principles and Practice of Surgery," edited by J. Tyrrell, vol. ii. p. 357.

† "A Treatise on the Malformations, Injuries, and Diseases of the Rectum and Anus," New York, 1837, p. 227.

‡ "On Diseases of the Rectum," by J. Syme. Third Edition, Edinburgh, 1854. Pp. 103—105.

or shreddy and malignant looking, but possessing a peduncle or footstalk sometimes capable of sound cicatrization after being divided; in the third form which polypus of the rectum assumes, the tumour is of a firmer consistency, smoother surface, and more regularly spheroidal or oval form.

The experience of Mr. Syme and Dr. Bushe, as well as the inference to be drawn from the majority of cases of this affection that have been recorded, lead to the conclusion that these growths most frequently occur in adults, though the greater number of cases observed by Sir Astley Cooper were in young subjects; only one case of a child with polypus of the rectum has at present come under my observation.

The symptoms of polypus of the rectum will at first be rather annoying than painful, the patient being troubled by mucous discharge from the anus soiling his linen; as the polypus increases weight and fulness of the rectum, tenesmus and the sensation of the presence of a foreign body will be complained of. If it be situated near the anus it will be protruded at stool, and will require to be replaced by the hand; if it has acquired any size, and is pyriform in shape, some difficulty may be experienced in returning it within the bowel; or if long and narrow, as in one case in which I operated, it will be always

protruded. When the attachment of a polypus is near the anus, the irritation it produces will cause spasmodic contraction of the terminal portion of the intestinal canal. Dr. Bushe* had a patient in whom the bowel contracted with so much force as to detach the tumour. The polypus was of the mucous species. After the polypus has attained a certain development, diarrhœa and dysenteric symptoms will be present, consequent on the irritation to which the intestine is subject; flatulent distension of the stomach and bowels, and other sympathetic affections will exist; and if it be of the character of the second species mentioned by Mr. Syme, the fæces will be besmeared with blood or pus ; they will also be contorted and figured, leading to the supposition that stricture of the rectum exists.

In the benign polypi the health will not usually be much affected, but in the malignant variety there is a sallow cachetic appearance of the countenance, the appetite fails, the tongue is furred, and lancinating pains in the rectum, extending up the sacrum and down the thighs, and flatulent distension of the stomach and bowels will be experienced. As the disease advances ulceration attacks the morbid growth and extends to the coats of the intestine, a copious fœtid purulent discharge, and hæmorrhage

* Op. cit. page 228.

to a considerable extent occur, by which the strength is greatly reduced; defecation is performed with difficulty and attended with great agony, emaciation takes place, and the patient at last sinks, worn out by pain, irritation, and hectic.

Polypi of the rectum are usually solitary, but occasionally there may be more than one.

Mucous polypi are not very sensible, but they should be removed as soon as discovered, there being a possibility of their degenerating in structure and proving fatal. Ligature presents the best means for their removal, and is that which I have hitherto adopted. Bushe recommends excision of polypi, and thinks there is no cause for the apprehension of hæmorrhage. Sir Astley Cooper experienced considerable bleeding in one case, in which he excised a polypus; he usually removed them by ligature. Mr. Syme has always had recourse to that method. If the peduncle is near the anus, its connexion with the intestine may be brought into view by injecting some warm water into the bowel, and at its expulsion the tumour will be prolapsed, when it must be seized with a pair of forceps and pulled down, and its connexion with the bowel, if possible, brought into view; a ligature should then be applied around its origin, after which it may be cut off by a pair of scissors, taking care not to cut it so close that the ligature

may be in danger of slipping off. If the polypus be sessile, or its stalk broad, the base should be transfixed by a needle carrying a double ligature, and tied in two portions. When situated higher up the gut, and the base not easily accessible to the fingers, a canula, similar to those employed in ligaturing polypi of the uterus, must be employed, or the ligature may be passed through a portion of gum elastic catheter. Previously to performing the operation the bowels should be freely acted on, that they may not require to be relieved for several days afterwards. Subsequent treatment is seldom necessary with respect to the local affection, which is the only subject of consideration now before us.

CHAPTER XV.

STRICTURE OF THE RECTUM.

When we consider the many points of analogy in structure and function of the rectum and those of the œsophagus and urethra, and of the numerous sources of irritation to which the terminal portion of the intestinal tube is exposed, it is not surprising that, like the two last-named mucous canals, it also should be liable to the formation of stricture.

Contraction of the rectum is met with under two very different forms. The one consists of a contraction and induration of its coats and deposit of lymph in the connecting cellular tissue, which, when occurring within certain limits of the anus, and coming under our observation before it has proceeded to too great an extent, is very amenable to judicious surgical treatment. But in the other form, unfortunately, we are able to do but little more than palliate the sufferings of the patient, and perhaps retard the onward progress of the disease to a fatal end. This second kind of contraction consists of those heterologous growths

and degeneration of structure denominated malignant, appearing as carcinoma, encephaloid, or colloid disease. It is obviously highly essential we should consider the two forms separately, and not confound them together; for, as Mr. Syme* remarks, "Want of attention to this very obvious and necessary distinction has led to great misapprehension in regard to the nature of the disease, and serious errors of practice in its treatment." In this chapter it is intended to consider only the simple or benign stricture.

Stricture of the rectum results from inflammation and prolonged irritation produced by a variety of causes, and, as a consequence, the deposit of plastic matter interstitially in the proper tunics and intercellular membrane of the intestine, by which degeneration and alteration of the tissues are induced; the capacity of the bowel is diminished, and is still further decreased by the property of contraction inherent in the effused material.

Constipation, however produced, is one of the most frequent causes of irritation in the lower bowel, the fæces lodge in the sacculi of the colon, become hard, accumulate in the rectum, and set up a chronic state of low inflammation. Prolonged indigestion, depending on functional disorder of the stomach, duodenum,

* Op. cit. third edit. page 107.

pancreas, or liver, may have the same effect, in consequence of the acridness and irritating properties of the excrementitious matter; and there are very few who have not themselves, when suffering from temporary derangement of the digestive organs, experienced, during defecation, the acute scalding and irritation so frequently attending that condition. Another frequent source of irritation is the very general habit, among many individuals, of having recourse improperly and too frequently to powerful and drastic purgatives. Dysentery and diarrhœa, particularly when neglected or improperly treated, will induce stricture, and it may also result from the cicatrization of ulcers attending the former disease. Mr. Travers* mentions a case of stricture of the rectum caused by an excessive morbid growth of fat exterior to the bowel. Injuries by foreign bodies, or from attempts to extract them; lacerations of the mucous membrane, or of the whole thickness of the intestinal walls, also produce stricture; in the latter case it is usually very intractable, as is urethral stricture, the result of laceration by external violence; operations for fistula in ano and the extirpation of hæmorrhoids, when improperly performed, have given rise to this affection. Authors also mention syphilis, metastasis of cutaneous eruptions,

* "Medico-Chirurgical Transactions," vol. xvii. page 361.

and suppression of discharges that have existed for some time, and have become habitual, as causes of stricture of the rectum. Others are of opinion that there is frequently a predisposition to contraction of the rectum ; and one recent author, thinks this is not only the case, but asserts he has " repeatedly noticed several members of the same family afflicted with stricture."

It must not be supposed, as some writers would lead us to do, that stricture of the rectum is a very frequent disease ; those who have had the greatest opportunities and the most extended fields for observation, whose acumen in the diagnosis of disease, and whose integrity is most to be relied on, have not met with this affection as a common occurrence. In the museums of our hospitals the pathological specimens are few, and those who are in the habit of seeing large numbers of post-mortem examinations meet with examples of it but seldom. In a large parochial infirmary in which I have had opportunities of examining many bodies, I have seldom discovered stricture of the rectum. In public and private practice I have met with not a few cases of dyspepsia in which the symptoms simulated those of stricture, and, had I been induced to have used bougies at the same time that internal remedies were prescribed, I might have deluded myself with the belief that I had cured

a disease which, in reality, had never existed; however, I have the greater satisfaction in knowing I relieved all the symptoms and discomfort of the patients by very simple constitutional treatment. Dr. Bushe * remarks, "Organic stricture is supposed by many to be of very common occurrence, but I have not found it to be so; for the cases I have seen bore no proportion to the number I ought to have met with, were the statements made in books correct."

The most usual seat of stricture of the rectum is within two or three inches of the anus, and it can readily be detected by the finger; occasionally it is found higher up, even in the sigmoid flexure of the colon, but these cases are very few, and their absolute existence has not generally been known till after death; on the contrary, the cases in which stricture was supposed to have existed, and absence of all contraction has been demonstrated by post-mortem examinations, are by no means rare. Some writers have expressed opinions that stricture is most common about the termination of the colon; Mr. White † says, "The situation in which we meet with strictures in the alimentary canal is most commonly

* Op. cit. pages 264-5.

† "Observations on Strictures of the Rectum and other Affections." By W. White. Third Edition. Bath, 1820. Page 47.

about the termination of the colon." Mr. Salmon* remarks, "In the majority of cases which have fallen under my observation, the stricture has been situated between five or six inches from the anus, about the situation of the angle formed by the first portion of the rectum. Next in frequency I have discovered the disease at the junction of the sigmoid flexure of the colon with the rectum." Mr. South † observes, "These, however, must be very rare cases, for all the best authorities declare the stricture to be almost universally low down." Finally, I may quote the opinion of Sir Benjamin Brodie, ‡ "Strictures of the rectum are commonly situated in the lower part of the gut, within the reach of the finger. Are they ever situated higher up? I saw one case where stricture of the rectum was about six inches above the anus; and I saw another case, where there was stricture in the sigmoid flexure of the colon, and manifestly the consequence of a contracted cicatrix of an ulcer, which had formerly existed at this part. Every now and then also, I have heard from medical practitioners of my acquaintance, of a stricture of the upper part of the

* "On Stricture of the Rectum." By F. Salmon. Fourth Edition. Page 23.

† "Chelius' System of Surgery," translated from the German, and accompanied with additional notes and observations. By J. F. South. Vol ii. page 336.

‡ "Medical Gazette," vol. xvi. page 30.

rectum, or of the sigmoid flexure of the colon having been discovered after death. Such cases however, you may be assured, are of very rare occurrence."

Stricture varies considerably in extent; it may affect only one side of the bowel, or be confined to one of the folds of the mucous membrane which some anatomists term valves, or the whole circumference of the intestine may be involved forming annular stricture: the same difference also exists with regard to the extent the bowel is affected longitudinally, the induration may be only a few lines in width or may extend to several inches.

Stricture of the rectum attacks both sexes, and its comparative frequency is nearly equal; some writers having seen a majority of cases in females, whilst others have observed the reverse to obtain; however, they all agree that the difference in numbers is very slight; thus out of fifteen cases of genuine stricture, which were all Dr. Bushe had seen, eight were females.

The period of life in which this affection usually developes itself is between twenty-five and sixty; but it has been observed as early as the ninth year, and from injury at five years of age. Dr. Bushe had a patient die of it in his seventy-second year.

Stricture of the rectum is very insidious in its progress, and the surgeon is seldom consulted till it has made considerable advances, and the symptoms become urgent. On inquiring into the history of such

cases, we shall find the patient has for some time previously been subject to constipation, the bowels acting only at intervals of several days, the stool being scanty, passed in small lumps, or, attenuated and compressed; at other times diarrhœa has supervened, caused by the constant irritation to which the mucous membrane was exposed, and the fluid fæces will be ejected as if from a syringe. Itching and heat about the anus are early symptoms. The stomach and upper part of the alimentary canal are sympathetically affected, digestion is impaired, flatulent distension and spasmodic pains in the abdomen are complained of, and palpitation of the heart, and headache, will be other sources of suffering. After the disease has progressed to a certain extent, there arises a sense of obstruction and weight in the bowel; pain in the loins, extending down the hips and thighs, irritability of the urinary organs will be induced, and in the female, there will be a sensation of bearing down of the womb; nervous irritation and despondency will also accompany this disease. The tongue will be loaded, the countenance dull, and the functions of the liver and kidneys deranged. After the disease has existed for some time, the blood-vessels of the rectum and anus become engorged, and tumours are formed, most commonly by the extravasation of blood, which may become absorbed and leave elon-

gated folds of thickened integument around the anal orifice. Another consequence of vascular determination and impediment to the circulation, resulting from the condensation of the coats of the intestine and the pressure exerted by the accumulated fæces, is the formation of abscess in the cellular tissue external to the bowel, which, bursting by one or several openings, degenerate into fistulæ. As the disease advances, the patient will have sudden and frequent desire to evacuate the contents of the bowels, violent straining ensues, he passes chiefly mucus and a little blood, the fæcal matter, if any, being small in quantity ; as a consequence, a sensation of fulness of the bowel remains, and is the reason why the attempts to defecate follow at short intervals. Sometimes temporary relief is experienced by the supervention of diarrhœa ; the mucous membrane, from the irritation it is subject to, pours out a large quantity of mucus, which, rendering the fæcal mass fluid, permits of its passage through the contracted channel, and by this effort of nature the whole, or the greater part, of the accumulated matter is discharged, and serious consequences for the time averted.

When the disease has progressed, and the passage through the intestine becomes very narrow, the patient's condition is one of great peril, and symptoms of strangulated hernia or peritonitis may super-

vene at any moment: the former may occur from the aperture through the intestine being too small to permit the fæces to pass, or from the lodgment of some body producing obstruction, which may be a nodule of indurated fæces, or the stone of a plum or cherry, the bone of a fish, or other substance that has been swallowed, becoming entangled and occluding the opening. Obstinate constipation sets in, followed by vomiting; at first the contents of the stomach only are thrown up, but shortly the vomiting becomes stercoraceous, and unless the natural passage be restored, or an artificial one formed, a fatal termination will be the consequence. In other cases, the patient may be carried off by peritonitis, which is generally induced by perforation of the coats of the intestine; ulceration taking place above the seat of stricture; while this process is going on, diarrhœa is often present.

Unless a stricture of the rectum is within reach of the finger, and fortunately it usually is, the diagnosis must be uncertain, and surrounded with doubt; exploration by a bougie can never be satisfactory, nor can it afford us positive information, from the liability of its progress being arrested by a fold of the mucous membrane, or the promontory of the sacrum, or by a flexure of the intestine, which in some individuals may be abrupt, and also liable to alteration of

position at different periods. The instances are not few in which stricture has been supposed to exist, and numerous fruitless attempts have been made to pass a bougie, when, after death, no organic obstruction has been discovered. Mr. Syme* mentions the case of an elderly lady who had been supposed, by two medical men of high respectability, under whose care she was, to suffer from stricture of the rectum between five and six inches from the anus; he goes on to say, "Finding that the coats of the rectum, though greatly dilated, were quite smooth, and apparently sound in their texture, so far as my finger could reach, and conceiving that the symptoms of the case denoted a want of tone or proper action, rather than mechanical obstruction of the bowels, I expressed a decided opinion that there was no stricture in existence. Not many months afterwards, the patient died; and when the body was opened, not the slightest trace of contraction could be discovered in the rectum, or any other part of the intestinal canal. One gentleman who had been formerly in attendance, was present at this examination, and wishing to know what had caused the deception, which he said had led to more than three hundred hours being spent by himself and colleague in endeavours to dilate the stricture with bougies, he intro-

* Op. cit. page 88.

duced one as he was wont to do, and found that, upon arriving at the depth it used to reach, its point rested on the promontory of the sacrum." But even supposing the instrument to enter a constricted portion of the gut, how are we to tell whether it is a simple stricture or a carcinomatous contraction? a question of the utmost importance, for the treatment that would be beneficial in the former case, would only aggravate the latter.

When a patient complains of a difficulty in defecating, and passes small and contorted stools, it by no means follows that stricture of the rectum exists; a variety of causes will produce these symptoms; they are very common in dyspeptic patients, caused by spasmodic and irregular contraction of some portion of the rectum or of the sphincter muscles; the latter is a condition of parts constantly attending ulceration of the lower part of the rectum; the pressure of a displaced and enlarged uterus, ovarian, uterine, and other pelvic tumours, abscess of the recto-vaginal septum, the impaction of alvine and biliary concretions, and in the male, the enlargement of the prostate gland, may all produce the like effects.

One peculiar feature in stricture of the rectum is, that sometimes the patient's general health remains for a long period unaffected; he may have suffered from constipation or irregularity of the bowels, which

he attributed only to functional disorder; cases are on record, where the disease has advanced till fatal obstruction has taken place without the disease having been previously suspected, either by the patient or his medical attendant. Usually the appetite fails, the patient becomes pale, loses flesh, and ultimately hectic fever sets in, under which he sinks by the exhaustion of the vital powers. Previously, however, to the final termination of the case, a copious mucopurulent secretion takes place, and will sometimes be so acrid as to produce excoriation of the anus, and may be in such quantity as to flow outward when the slightest exertion is made, or even on the erect position being assumed.

Sometimes sufferers from stricture die from the accumulation of fæces in the colon, before ulceration and hectic commence; they become melancholy and pallid, are greatly distressed by flatulent distension, the circulation is disturbed, the pulse being weak and irregular, respiration is embarrassed by the free action of the diaphragm being impeded, pains in the legs and cramps are complained of, the feet are cold, there is determination of blood to the head, producing giddiness and stupor, and, lastly, symptoms of internal strangulation supervene, which terminate fatally, unless relieved by operation.

The prognosis of stricture will be influenced by a

a number of circumstances depending on the degree of contraction, its condition, position, and the causes that led to its formation. If within reach of the finger, and the contraction and induration have not advanced far, we may entertain hopes of very favourable results from judicious treatment. But if the disease has progressed, the hardening being great, and the passage of the bowel much diminished, our opinions as to the prospect of a cure will be less favourable. Should ulceration have occurred, the patient is in a much worse condition, and will require very cautious treatment, or the disease may be aggravated instead of being benefited.

The object to be obtained in the treatment of this disease is, if possible, to restore the bowel to its natural dimensions, or, if that cannot be accomplished, to enlarge the constricted part sufficiently to permit the free passage of the fæces. Dilatation by the careful introduction of bougies is the means by which this is to be effected. In the majority of cases, it will not be prudent to have recourse to the bougie immediately, either in consequence of the irritability of the bowel, or from its being immensely distended above the point of contraction by the accumulation of feculent matter, which, pressing against the stricture, is a source of constant irritation, and tends to aggravate the disease; therefore, the im-

portance of unloading the bowel before adopting other means must be obvious. This is to be accomplished by the introduction of an elastic tube through the stricture into the superincumbent mass of fæces, and injecting tepid water, thin gruel, and olive oil, or tepid water and soap ; this practice must be repeated every day, or every other day, till the whole of the fæcal accumulation is dissolved, and washed away ; the size of the tube must be regulated by the tightness of the contraction ; in some cases, we shall not be able to use one larger than an urethral catheter. If much local or general irritability or restlessness be present an opiate enema, or a suppository of the pilula saponis composita at bed-time, will be of the utmost service, followed in the morning by a mild unirritating aperient, such as the confection of senna, tratrate of potash, manna, castor oil, &c. Sir Benjamin Brodie recommends the following draught to be taken two or three times a day: balsam of copaiba, half a drachm ; solution of potash, fifteen minims; mucilage, three drachms ; and nine drachms of caraway-water. If inflammatory symptoms be present, blood may be taken locally, and a warm hip-bath used at night. It will be desirable during the treatment that the patient should observe the horizontal position as much as possible, and the diet restricted to that which is light and nutritious, and yields the

smallest amount of excrementitious matter, such as good broths, jellies, eggs, arrowroot, sago, and the like.

Having freed the bowel from the accumulated fæces, and allayed the irritability of the part, we may endeavour to restore its calibre by the introduction of bougies. These are made of various substances, of metal, wood, cloth covered with plaster, and elastic gum; only those formed of the last two materials should be used when the stricture is not close to the anus; I give the preference to the elastic gum bougie, and have them made more flexible than those usually sold in the shops, which obviates the objection urged against them by surgeons who advocate the use of those formed of plaster.

The surgeon, by previous examination having satisfied himself of the existence of stricture, and formed an idea of the extent to which the narrowing of the intestine has taken place, selects an instrument that will pass into it without much difficulty. The patient is placed on his side with his knees drawn up, and the bougie lubricated with oil or lard, is passed upwards to the obstruction, and steady but gentle pressure is made against it; no force must be used, and if the resistance cannot be overcome without, a smaller instrument must be tried till one be permitted to pass; after it has entered

the contraction, it should be allowed to remain a few minutes, and then withdrawn. Some authors recommend the bougie to be left in for several hours, but such a mode of treatment is more likely to induce irritation than to effect the object we have in view, namely that of stimulating the vessels to the absorption of the effused lymph forming the stricture. If much irritation follows the operation, the patient should have a hip-bath, and it may be necessary to inject soothing and opiate enemata. At an interval of three or four days, the operation is to be repeated; the same instrument that was introduced on the first occasion should be used again; if it passes with greater ease, it may be withdrawn, and one a little larger passed, and thus the treatment is to be pursued till a full sized bougie can be introduced with ease, and the patient ceases to suffer any inconvenience.

In some cases of close stricture of long standing, we shall gain time by incising its margin previous to using dilatation; the best instrument for the purpose is a narrow blunt-pointed bistoury passed into the stricture, on the finger previously introduced; several slight notches are far preferable to one of greater extent, as there will then be no fear of hæmorrhage, or of matter forming in the cellular tissue. It has been proposed to destroy the indurated structure by

various escharotics, but such a proceeding must always be uncertain in its effects, from the difficulty of limiting the action of the caustic, and therefore unadvisable.

Those cases of stricture that have come under my observation have been within reach of the finger, and have been treated on the principles advocated in the text.

Various instruments have been invented for dilating strictures of the rectum, by Weiss, Bushe, Arnott, Sir C. Bell, Charriere, Bermond, Costallat, Coxeter, and others; but though all of them are ingenious, the bougie will be found the most efficient.

When the stricture is in the sigmoid flexure of the colon, we cannot expect to obtain much benefit by bougies, from the uncertainty that attends their use in such cases. Should the contraction become so great that symptoms of permanent obstruction arise, the propriety of establishing an artificial anus, in order to save the patient's life, will be forced on our consideration. The bowel may be opened through the anterior walls, as suggested by Littre, or from the lumbar region, as proposed by Callisen, or by Amussat's modification of the latter. In the thirty-fourth volume of the "Medico-Chirurgical Transactions," Mr. Luke has considered the merits of the two operations, and in the thirty-fifth volume there

is a very valuable paper by Mr. Cæsar Hawkins, in which all the recorded cases are arranged in a tabular form, and an elaborate analysis appended. Details of several of the cases are also published in the Society's Transactions.

CHAPTER XVI.

MALIGNANT DISEASES OF THE RECTUM.

The rectum is one of the parts of the human frame in which is evidenced a disposition to those intractable heterologous growths and transformations of tissue, comprehended under the titles carcinoma or scirrhus; medullary or encephaloid cancer, and colloid cancer.

Unlike simple stricture, malignant disease occurs most frequently in the upper part of the rectum, or in the sigmoid flexure of the colon; in a few cases the anus is the part first affected, the disease then assuming the form of epithelial cancer, and being of the like character to that we observe occurring in the lip and other parts.

Carcinoma or hard cancer commences either as tuberculous growths, of cartilaginous consistency, projecting from the surface of the mucous membrane, or originates in the inter-muscular areolar tissue, and, extends inwards, involving the other textures. In the progress of the disease, the muscular

fibres become pale, degenerate, and lose their distinctive characters, in that of the morbid growth; the calibre of the bowel is diminished by contraction, and by the projection of tubercles and nodules into it.

The rectum in some cases is involved in cancerous disease, which has its origin in adjoining structures; it is frequently implicated when the disease has commenced in the uterus, or in the upper part of the recto-vaginal septum, and then, by the process of ulceration, a communication may be formed between the rectum and vagina; in the male the bladder is liable to be involved, or the disease may originate in that viscus, and implicate the rectum secondarily. When the bladder is the primary seat of the disease, it appears in the form of medullary cancer. Mr. Busk* exhibited a preparation at a meeting of the Pathological Society, in 1846, taken from a boy who died of acute peritonitis. He had a tight stricture of the rectum, three or four inches from the anus; it was accompanied by ulceration of the mucous membrane, and was produced by a large deposit of medullary sarcoma external to the muscular coat of the intestine. In the greater number of cases, unless they come under our observation from the commencement, we shall not be able to trace the

* "Pathological Transactions," vol. i., p. 67.

disease to the tissue or organ in which it originated, in consequence of its extending, and so thoroughly pervading the whole of the surrounding structures.

The extent to which the intestine is affected varies with the character of the disease and its duration; carcinoma may occupy the whole or greater part of the circumference, and extend from one to six or eight inches in a longitudinal direction. Medullary and colloid cancer more generally implicate only a portion of the circumference of the bowel, but its cavity will be greatly reduced by the projection inwards of large masses of the morbid structure.

Cruvelhier thinks cancer of the rectum, in whatever form it may appear, is mostly a local disease; but the majority of pathologists consider that malignant disease occurring in any part of the body, if ever local, is only so at a very early stage, that the constitution speedily becomes tainted, and a cachectic and malignant diathesis established; in practice, we find, when a cancerous part has been removed by operation, in the greater number of instances, it returns either in the cicatrix or other parts of the body.

We meet with malignant disease of the rectum occurring concurrently with cancerous affections of the mamma, stomach, pylorus, and other organs, It is more frequent in females than in males, and

in the former it is usually developed at the period of the cessation of the menses. Those about the meridian of life, or a little past it, are mostly liable to these affections, but no age is exempt; encephaloid disease is more likely to attack the young than carcinoma. Bushe* saw a case of the former in a boy of twelve years, and Mr. Busk's patient, previously referred to, was sixteen years of age.

Whatever may be the character of the disease, whether carcinomatous, encephaloid, or colloid, more or less obstruction to the evacuation of the contents of the bowel arises from its canal being encroached upon and narrowed, occasioning the patient great and constant distress. He experiences a dull aching and fixed pain in the sacral region, violent tenesmus, weight and bearing down, especially after defecation, severe shooting and lancinating pains extend to the loins, hips, and down the thighs. The stools are passed with difficulty, are scanty, painful, and frequent, and attended with bleeding or puriform sanies, which is often excessively fœtid; in fungoid disease considerable hæmorrhage occurs from time to time. In some instances the stools are compressed and figured, or passed in small pellets, as in simple stricture. Severe vesical irritation is induced; the whole of the digestive organs are deranged, causing pains

* Op. cit. p. 292.

in the abdomen and distension, hiccough, eructations, nausea, and vomiting are present; the appetite fails, emaciation and loss of strength ensue, the countenance assumes the peculiar leaden hue, indicative of malignant disease, anasarca and hectic supervene, and under continuous suffering the vital powers succumb. Sometimes obstruction takes place, and the patient dies with the symptoms of internal strangulation or acute peritonitis.

In the commencement, unless the disease is within reach of the finger, and occurs as hardened tubercles or irregular fungoid growths, the diagnosis of the disease is not easy; but in the advanced stage the excessively severe shooting pain, the fœtid puriform discharge, the rapid progress of the affection, and the peculiar unhealthy aspect of the countenance, lead to a correct conclusion. Yet the latter appearance is not invariably present, as was illustrated in a man aged fifty, who applied at the Blenheim Dispensary the year before last affected with fungoid disease, the masses of which nearly filled the pelvis; his countenance remained clear, and his general health was not much disturbed for a considerable time; he lost blood at stool, and a copious hæmorrhage followed any examination, even when conducted with the greatest care and gentleness.

In the treatment of this disease all our efforts will

be unavailing in effecting a cure, but by well directed means we shall be able to mitigate the sufferings, and even to prolong existence. Narcotics are the remedies chiefly to be relied on to afford ease from pain; they must be administered by the mouth and by the rectum. It will be desirable, in most instances, to confine the patient to a couch, as walking, or even the upright position, will aggravate all the symptoms, in consequence of the vessels of the rectum becoming congested by the gravitation of blood. Great attention must be paid to diet, which must be nutritious, light, and easy of digestion, all stimulating and heating articles of food being strictly forbidden. The bowels must be kept open by small doses of castor or olive oil, and, after each dejection, emollient and anodyne enemata must be used. Suppositories of hyoscyamus and conium, separately or conjoined, with or without the addition of camphor; also opium and its various preparations will be required to allay the distressing pain. The warm hip-bath, by its soothing effects, will be an useful adjunct in the treatment, and, as it produces no fatigue to the patient, may be used at all periods of the disease. Irritation is to be allayed by injections of warm oil, oil and lime water, and decoction of marsh-mallows with opium. If there is acrid and fœtid discharge, emollient and mucilaginous enemata, containing chloride of zinc,

well diluted, Peruvian balsam, creosote, &c., must be used. According to the patient's condition, we may prescribe the various preparations of iron or vegetable tonics with alkalies; arsenic is sometimes prescribed for cancerous diseases of other parts, but its usefulness in this or similar cases may be questioned. Morphia and other preparations of opium become indispensable, as the disease advances, to assuage the pain and procure sleep. The tolerance of this drug by the system, when effected with cancer, is extraordinary; doses will be required to procure ease, which, under other circumstances, would prove fatal to half a dozen individuals. A lady I attended with carcinoma, which went on to ulceration, took eight grains of morphia in twenty-four hours, besides narcotic suppositories and enemata, and, notwithstanding these large doses, her sufferings were most acute; her case was one of the most distressing that could be witnessed; she ultimately sank exhausted by pain and constitutional irritation. In fungoid disease, the hæmorrhage at times is very profuse; an endeavour to arrest it must be made by the application to the sacrum of bladders containing pounded ice, the injection of iced water, enemata containing mineral and vegetable astringents, as the preparations of lead, zinc, copper, alum, tannic acid, infusion of matico, &c.

Lisfranc proposed excision of the rectum, when affected with carcinomatous disease, and he has performed the operation several times; other surgeons have also had recourse to the same proceeding, but the results are by no means favourable. In the greater number of cases the disease returned within a short period in an aggravated form, and it is questionable whether those reported to have been cured were not instances of simple induration, and not true cancer. I have never seen the rectum removed, and should be very unwilling to undertake the operation, from a conviction that I should not be rendering benefit to the patient in the slightest degree; and in saying this, I believe I utter the sentiments of the majority of British surgeons.

CHAPTER XVII.

INJURIES OF THE RECTUM.

The rectum is wounded intentionally in some surgical operations, as in puncturing the bladder through the trigone vesicale for the relief of retention of urine, when an instrument cannot be passed per urethram; also in the treatment of some forms of stricture, a subject on which Mr. Cock has made some valuable observations in a paper published in the thirty-fifth volume of the "Medico-Chirurgical Transactions."* It is wounded in operating for fistula in ano, but not so extensively as was formerly the custom; and it may be necessary to incise it for the extraction of foreign bodies; the surgeon sometimes accidentally wounds the rectum in performing the operation of lithotomy, but this is seldom the case if the operator depresses the intestine with the fore-finger of the left-hand whilst he is making the

* See also Mr. Henry Thompson's "Essay on the Pathology and Treatment of Stricture of the Urethra," pp. 303—309.

deeper incisions; he should also introduce the finger into the rectum before he commences, as, by so doing, he will cause the bowel to contract, or should it be loaded with fæces he will be made aware of the fact, and will not proceed till he has procured their evacuation. Some years since I saw the rectum of a child cut freely into by an hospital surgeon in consequence of the neglect of these precautionary measures; the fæces were forcibly ejected through the incision in the perinæum, and greatly embarrassed the operator.

The rectum is lacerated in various degrees and directions by external injuries, and from causes acting from within the body, as in parturition, or during the expulsion of bulky and indurated fæces. The laceration may involve the whole of the structures or the mucous membrane only, and thus two forms of injury are met with—the complete and the incomplete.

The incomplete form of laceration generally occurs in those who are of constipated habit, and is more frequently produced by the expulsion of a hardened stool than from any other cause. If the rent is the consequence of defecation it may be either vertical or transverse; when vertical it results from undue distension of the anus during the violent efforts of the expulsive muscles, whilst the sphincters are contracted, or yield but slowly; it usually terminates

at the line of junction of the skin and mucous membrane ; when the laceration is transverse, its situation is above the margin of the internal sphincter, and is the effect of a fold of mucous membrane of the pouch of the rectum falling under a mass of indurated fæces at the time of their forcible extrusion, and being dragged down with them is torn from side to side. Those who are liable to this accident are the subjects of constipation, and have the upper part of the rectum relaxed. Complete laceration sometimes ensues from the same cause, though it must be a very rare occurrence. Mr. Mayo* relates a case in which he was consulted, the patient, a lady of forty, of constipated habit, was on a journey, and the bowels had not acted for many hours ; during a violent effort to relieve them she felt something give way, and on the following morning some fæces passed per vaginam. An examination revealed a rent two inches from the anus sufficiently large to admit the end of the finger.

The symptoms of laceration, the consequence of defecation, are a sense of tearing and giving way of the part attended with pain, which is lessened after a time, but does not entirely subside, and is renewed with more or less severity whenever the patient goes to stool ; at the period of the occurrence the fæces

* Op. cit. page 13.

are streaked with blood, and with pus as soon as suppuration is established. After the accident the same phenomena occur as in wounds of other parts, inflammation is set up, lymph is effused, the margins of the rent become swollen, granulation and cicatrization follow, or the wound degenerates into an ulcer.

In the treatment of this injury it is essential to keep the bowels easy; emollient enemata will effect this object better than any other means; but mild aperients may be exhibited if they be thought advisable; active cathartics must not be had recourse to, or they will be productive of harm by exciting determination of blood to the rectum, and rendering the evacuations acrid and irritating. The wound must be cleansed after each evacuation, or the lodgment of particles of fæcal matter will possibly give rise to agonising pain and spasm of the sphincter. When the laceration does not readily heal, but remains irritable and painful, nitrate of silver in solution should be applied, or the solid pencil may be passed lightly over the surface. In spite of these means the wound sometimes will not heal, but passes into the condition of an ulcer, in which case it will be necessary to make an incision through it in the manner directed in the Chapter on Fissure of the Rectum.

In the greater number of cases the treatment described, conjoined with the recumbent position and moderate unstimulating diet, will be all that is necessary. However, instances occur in which slight injuries are productive of excessive local inflammation or great constitutional excitement; under these circumstances, in plethoric individuals, it may be necessary to take blood from the system generally, to apply leeches around the anus, or to cup over the sacrum. When the wound is inflamed and painful, a cataplasm of linseed, or bread impregnated with a solution of acetate of lead and infusion of tobacco or laudanum must be applied to the anus.

M. K. consulted me under the following circumstances: the day previously, while passing an indurated motion, she suddenly felt great pain and a sensation of tearing of the anus; she also noticed signs of blood; the pain decreased, and she remained tolerably easy till she went to stool the following morning, when it returned with great severity, which induced her to seek medical assistance. On examination I perceived a slight fissure at the margin of the anus, and found it involved the mucous membrane for about an inch. I ordered her to have an ounce of castor oil, and to wash out the rectum with an enema of warm water; there being tenderness on pressure around the external portion of the laceration, a poultice was directed; these means afforded relief; however, the laceration did not heal, it became irritable, and defecation was followed

by considerable pain; after eight days I applied the nitrate of silver, and repeated it two or three times at intervals of two days, and a cure was shortly effected.

T. M. applied to me in consequence of experiencing pain at stool with purulent discharge from the anus. The history of the case was, that some weeks previously, while straining violently at the closet, he felt "something give way at the end of the bowel," and blood flowed afterwards; he had previously been very costive; to lessen the pain subsequently produced by a hard stool, he took castor oil frequently up to the time of his seeing me. I introduced my finger into the bowel, and felt at the upper margin of the sphincter a fold of the mucous membrane that had been torn from above, where a depression with a pulpy surface then existed; the torn membrane was tumid and indurated. He was ordered an ounce and a half of castor oil to be taken early in the morning, and an enema of warm gruel after the oil had acted; by these means the bowels having been thoroughly unloaded, I then carried an incision through the centre of the ulcer and lacerated membrane. He was directed to observe the horizontal position, and was restricted to a farinaceous diet. An emollient enema was given on the third day, and ordered to be repeated every second day; ablution with tepid water and soap to be used night and morning, and by these means recovery soon took place.

An accident commonly designated laceration of the rectum occurs during parturition, but it is, in

truth, rupture of the sphincter only. However, it now and then happens the intestine is also torn. The circumstances producing this injury appertain either to the child or to the mother. Those which belong to the child, are the large size and solidity of the head ; to its malposition, whereby is presented a longer diameter than usual to the external outlet ; to malpresentations, as in breech and footling cases, which do not receive the proper direction so readily as the head; and face presentations, involving the passage of the head in its longest diameter when passing over the perinæum.

The causes appertaining to the mother are her position, as when the lumbar vertebræ are curved forward, and the child's head thereby directed downward and backward on the rectum and perinæum ; the same results if the promontory of the sacrum projects much anteriorly, or if the sacrum be but little curved forward ; and, lastly, the perinæum may be preternaturally broad, and materially diminish the capacity of the lower outlet.

Sometimes the recto-vaginal septum is torn along with the posterior part of the perinæum, and the child passes per anum. The history of a case in which this accident occurred, is given by Dr. Andrews, of Steubenville, Ohio, in the " Philadelphia Examiner," for March, 1839 ; the bowels were kept

constipated during a number of days, and recovery took place. Another case is mentioned in the "Dublin Journal," of a child born per anum with laceration of the perinæum for two-thirds of its extent; the rent suppurated, gradually closed up, and the woman made a complete recovery.

The rectum may be lacerated by want of due caution on the part of the medical attendant, either by not supporting the perinæum, or by some awkwardness in cases of preternatural presentations; the improper and unskilful application of obstetric instruments may also induce the lesion we are now considering.

In rupture of the recto-vaginal septum the condition of the patient is truly pitiable; she is unable to retain her fæces, and is rendered miserable to herself and offensive to those about her.

In laceration resulting from parturition, no immediate operative interference is advisable, as any attempt to obtain union of the torn parts will be frustrated by their condition, and the irritation produced by the lochial discharge, but we may very materially mitigate the patient's discomfort by the exhibition of emollient enemata, to keep the bowels soluble, by washing out the vagina with warm water, and by drawing off the urine with a catheter to prevent its coming in contact with the wound and pro-

ducing irritation. The patient must be directed to lie on her side with the knees slightly flexed. The slighter cases of laceration will sometimes heal under this treatment alone, but the more severe will not do so, and after the lochia cease, and active inflammation in the part subsides, we must endeavour to restore the continuity of the part. The patient's health having been brought into as good a condition as possible by medical treatment, and the intestines being thoroughly freed from fæcal accumulations, the edges of the tear must be made raw; for this purpose, a small scalpel is the best instrument; some use the scissors; a wooden gorget is to be passed into the rectum, to support the parts while the margins are being pared with the knife; the edges are then to be brought into apposition, and secured by sutures, which are to be tied in the vagina; the number and kind of suture employed, must depend on the nature of the case and judgment of the surgeon; the twisted suture is better for securing the perinæal edges, and the pin most applicable is that used by Dr. Bushe.

The rectum is torn by a number of accidents, with or without injury to surrounding external parts; I attended, in conjunction with another surgeon, a woman who received a kick from a cow she was milking at the time, a lacerated wound was produced,

extending through the labium of the right side across the perinæum and into the rectum ; an artery in the labium was pouring out a jet of blood when we saw her. A ligature was applied to the bleeding vessel and two points of interrupted suture were inserted ; a fold of wet lint was kept to the part, she was confined to the bed, great attention paid to cleanliness, and the bowels were kept easy by enemata : the diet was spare. The wound suppurated and completely healed by granulation. Dr. Bushe * mentions having seen a case of perforation of the recto-vaginal septum by the end of an umbrella on which the patient was in the act of sitting. In St. George's Hospital Museum is a preparation from a man who fell off a table, and the leg of a chair, that he upset in falling, passed up the rectum, penetrated its walls, and entered the bladder. There was very slight external injury. He was in a state of collapse when admitted, and he sunk in about twenty-one hours.

By awkward attempts, and the application of too much force in endeavouring to pass a bougie up the rectum, its tunics have been torn or perforated. By ignorant and clumsy nurses, enema pipes have been thrust through the rectum and peritoneum, and the fluid injected into the abdominal cavity. In the museum of St. Bartholomew's Hospital is a prepara-

* Op. cit. page 80.

tion from the body of a patient whose death was occasioned by the injection of a pint of gruel into the peritoneal cavity.

The rectum is sometimes perforated by unskilful attempts to introduce a catheter into the bladder. Eighteen months since I was sent for to see an Irishman who had retention of urine ; the bladder was greatly distended, and reached nearly to the umbilicus ; forcible attempts had been made to relieve it, and the catheter had been made to enter the penis till the rings were brought into contact with the glans, but no urine flowed. I discovered the point of the instrument had been thrust through the urethra immediately anterior to the prostate, and had passed into the rectum. By keeping my finger in the bowel, I succeeded without much difficulty in passing a moderate size instrument into the bladder, and, to prevent any mischief, I ordered it to be retained for a day or two ; within ten days I was able to pass a full sized catheter, and the man did very well.

CHAPTER XVIII.

FOREIGN BODIES IN THE RECTUM.

We may be called upon to remove, by mechanical means, various substances from the rectum, either in consequence of their obstructing this outlet, producing inflammation, or interfering with the integrity of the intestine.

These substances may be divided into two classes, one being formed in the body, the other being introduced from without. To the first class belong biliary, intestinal, and fæcal concretions, while the second will include a long list of heterogeneous substances which have been swallowed, either accidentally or intentionally, or introduced into the rectum through the anus by the individuals themselves with a view to obviate costiveness; from a morbid state of the imagination, or by accident, or they may have been introduced by other persons from feelings of mischief or revenge. Those swallowed either by accident or intentionally, in consequence of a perverted condition of the mind, include portions of bones, the bones

of fish and small birds, the stones of fruit, coins, knives, pins, needles, nails, sealing-wax, brown paper, cedar pencils, &c. ; and among the variety of substances that have been introduced through the anus, according to the testimony of accredited authors, may be mentioned, bottles, pots, cups, a knitting-sheath, a shuttle with its roll of yarn, a pig's tail, ferrules, rings, pieces of wood, ivory, metal, horn, cork, bone, &c.

Foreign bodies that have been swallowed do not usually occasion much inconvenience in their passage through the intestinal canal, though it is sometimes marked by considerable irritation. Should the substance not be discharged with the fæces, but become entangled in the rectum, it will give rise to inflammation accompanied by tenesmus, violent straining and perhaps prolapsus ; by perforation of the tissues of the intestine it will lead to the formation of abscess and fistula ; or partial or total obstruction may be produced, followed by enteritis or peritonitis ; these effects will be greatly influenced by the size, form, shape, and nature of the substance. When intestinal or fæcal concretions are the cause, the symptoms are gradual in their accession and are preceded by signs of derangement of the stomach, liver and bowels ; at first the local disturbance is marked by a feeling of weight, distension, and pain in

the rectum, followed by obstinate constipation, great straining to relieve the bowels, attended with more or less prolapsus of the mucous membrane and congestion of its vessels ; and if the patient be not relieved, enteritis, peritonitis, and death will ensue. When the foreign substance has been introduced through the anus, the symptoms are more rapid in their development, and if the bowel has been at the same time injured, they will be more or less serious in their character in proportion to the extent and nature of the lesion.

It is seldom that we can gain any information from the patient when the substance has been swallowed, as it often happens that he is unconscious of the circumstance, but if it has passed into the rectum from without, the patient may then be able to make us acquainted with its nature and the manner of its introduction, unless he be of unsound mind, or was insensible at the time of the occurrence.

For extracting the various foreign substances it may be our duty to remove, instruments of different sizes and shapes, and effecting different objects, will be required, much depending on the form of the body to be extracted and the material of which it is composed, and on the ingenuity and tact of the surgeon. Should the substance be a bottle, or jar of glass or earthenware, it will be a good plan to insert slips of thin ivory,

wood, or gutta percha between it and the bowel, and thus form a tube around it which would greatly facilitate its extraction, and protect the intestine from injury, in case the bottle or jar should be broken. The anus being very dilatable, it will be rarely necessary to divide the sphincters, unless the foreign body be sharp and angular, and has penetrated the intestine, in which case an incision on one or both sides may be required.

The position of the patient should be on the side, with the knees drawn up towards the chin, and the buttocks projecting over the edge of the bed or couch, or, if deemed more convenient, he may be placed in the same position as for the operation of lithotomy.

Some years since I removed an ivory tube from the rectum of a woman, who was under my care, suffering from dyspepsia and torpor of the bowels, to which she had been subject for a considerable time. The rectum being in a relaxed condition, besides prescribing medicines to be taken by the mouth, I had directed she should inject a slightly astringent enema morning and evening ; the apparatus she used for the purpose consisted of a pig's bladder, into the neck of which was tied a smooth ivory jet, and on this occasion, while using it, the tube was forced from it into the rectum ; she immediately sent for me, and I saw her within half an hour of the accident; on making an

examination, the tube was felt immediately above the margin of the internal sphincter ; it was extracted without difficulty, a pair of œsophagus forceps being used for the purpose.

A short time since, a friend, a physician, was suddenly seized, while walking, with severe irritation and pain at the anus ; on his return home, he bathed himself with hot water, but it failed in affording any relief ; the finger being introduced within the anus, a portion of bone was felt and removed ; it was a piece of mutton bone with very sharp angular corners, and, had it not been extracted thus early, doubtless it would have perforated the intestine.

We shall more often be called upon to remove from the rectum intestinal and alvine concretions than any other substances ; I have had on several occasions to free the bowel of accumulated and indurated fæces. These cases occur mostly in females, and depend on the greater capacity of the pelvis permitting of accumulation, combined with the very general habit of postponing the calls of nature ; when it occurs in men, they are generally advanced in years, or are the subjects of paralysis. A lithotomy scoop is the best and most convenient instrument for our purpose, but if that be not at hand, the handle of a table-spoon is a very good substitute ; with either of these and the forefinger of the other hand there will be no difficulty

in effecting the object. After we have emptied the bowel as far as we can reach, enemata of warm soap and water, or olive oil, with decoction of barley, should be injected into the bowel by a long elastic tube, as often as may be deemed necessary so as to entirely free the intestines; after which cold water or slightly astringent enemata must be used to restore the tone of the bowel lost by the distension to which it had been subjected.

Sometimes ascarides nestle in the rectum in such numbers that they require to be removed manually, which is to be effected in the same manner as fæcal collections, but we cannot thereby remove the whole, and as they rapidly increase if any remain, additional means must be had recourse to; our end may be effectually accomplished by injecting from two to eight ounces, according to the age of the patient, of infusion of quassiæ; or olive oil, or turpentine in thin gruel, may be used; a dose of jalap, calomel, and aromatic powder should be prescribed to be taken early in the morning, and by these means the bowels will be thoroughly cleared. An important point, and one frequently overlooked in these cases, is to remove the debility of the intestines that always exists and favours the development of these entozoa; the bitter infusions and mineral acids are the best medicines for this purpose; they will prevent the great secretion of

mucus which forms the nidus of these parasitical creatures; the bowels must at the same time be kept regular by purgatives.

The subjoined are some of the curious and interesting cases of foreign bodies in the rectum which are on record.

Nolet,* surgeon to the Marine Hospital at Brest, relates the case of a monk, who, in order to cure himself of a violent colic, introduced into the rectum a bottle of Hungary wine, having previously made a hole through the cork to permit the fluid to flow into the intestine. In his desire to accomplish his object, he pushed the bottle so far that it completely entered the gut. Various means were tried to remove it without effecting the object; at last a boy, between eight and nine years of age, succeeded in introducing his hand into the bowel, and withdrew the bottle.

Dessault in endeavouring to remove a porcelain jelly pot, of conical form, and about three inches in length, fractured it in several pieces; however, he succeeded in removing them without injuring the intestine.

Morand† records the two following cases: A man,

* "Observations Curieuses sur des Phénoménes Extraordinaires qui regardent particulièrement la Medicine et la Chirurgie."—Obs. xxxiii. p. 103.

† Mem. de l'Acad. Roy. de Chirur. Paris, 1700.

about sixty years of age, presented himself at the Hospital de la Charité, complaining that the pipe of a syringe had entered his rectum. Gerard introduced his finger, and felt a foreign body, which he removed with a pair of lithotomy forceps. It proved to be a large knitting sheath of boxwood, six inches in length. A weaver who had long suffered from constipation, having some vague notions of the efficacy of suppositories, introduced into his rectum a shuttle with its roll of yarn. After five days he applied at the Hôtel Dieu. M. Bonhomme extracted it with a pair of lithotomy forceps.

The two following cases are related by Hevin.* M. Quesnay pushed a bone, which was arrested in the œsophagus, into the stomach. It was afterwards arrested in the rectum, and induced great pain. The patient again applied to M. Quesnay, who found the bone sticking obliquely across the intestine, with the lower end fixed in its walls. He removed it with a pair of forceps, first disengaging its inferior extremity, by pushing it upward. Faget removed a mutton bone from the rectum of a man he was called to see ; the bone had been swallowed eight days previously.

Méeckren† mentions a case, in which the jawbone of a turbot was arrested in the rectum. The patient

* Op. cit. tome iii. † Obs. Med. Chirurg.

attributed the local and constitutional symptoms he experienced to hæmorrhoids. The true cause was not discovered till in attempting to administer a lavement, the pipe of the instrument came in contact with a foreign body. Méeckren made an examination, and detected the bone with its ends fixed in the walls of the intestine; he removed it with his fingers. The patient recollected having swallowed it eight days previously, and experienced great pain in its passage through the intestine. Méeckren also mentions a case which occurred to Tholuix, in which the jawbone of a fish became arrested in the rectum. It was cut across with a pair of strong scissors, and the two portions extracted with ease.

Thiandière * details the case of a man, aged twenty-two, who, with the view to overcome costiveness, introduced a forked stick into the rectum. This stick was five inches long; one prong was an inch and a half longer than the other, and they were separated to the extent of two inches, each prong being about four lines in diameter, and the stem formed by their union half an inch. He inserted the one stem first, and when the short prong had entered the bowel, he endeavoured, by dragging on the long one, to force out the indurated fæces. In this ingenious essay it is unnecessary to say he failed com-

* "Bullet, Gen. de Therapeut.," Janvr., 1835.

pletely; the pain being very severe, he ceased his manipulations, and, finding it impossible to withdraw the fork, he forced the long prong completely within the anus, with the extraordinary idea that it would be consumed with the food. Fearful to divulge the nature of his case, he bore his sufferings in solitude and despair, until the abdominal pain and difficulty in urinating led him to seek the aid of Thiandière, who, on making an examination, soon discovered the foreign body, but it was so high up that he could scarcely touch it. He endeavoured, but in vain, to extract it with a forceps passed through a speculum. The happy idea then struck him of using his hand, which, after having washed out the rectum, he insinuated finger by finger. Conducted by the long branch, he succeeded in reaching the bifurcation of the stick, and disengaged it with difficulty from a fold of the mucous membrane, in which it had become entangled, then compressing the prongs together, he safely removed it.

Marchetti* mentions the following case. Some students of Goettingen introduced into the rectum of an unfortunate woman all, save the small extremity, of a pig's tail, from which they had cut enough of the bristles to render it as rough as possible. Various attempts were made to extract it, but

* Obs. Med. Rarior Syllog. cap. vii.

in vain. Marchetti being consulted, adopted a very simple and ingenious procedure, which consisted in securing its inferior extremity with a strong waxed thread, and slipping over it into the rectum a canula prepared for the purpose. He thus defended the bowel from the effects of the bristles, and easily removed it.

In the first volume of the "Medico-Chirurgical Transactions," Mr. Thomas relates the following case: —"A gentleman, of an inactive and sedentary disposition, had, for many years, suffered from constipated bowels, which increased to that degree that the most active cathartics failed in producing the desired effect. By the advice of a practitioner, whom he consulted in Paris, he daily introduced into the rectum a piece of flexible cane (about a finger's thickness), where it was allowed to remain until the desire to evacuate the fæces came on. This plan succeeded so well that for more than a twelvemonth he never had occasion to resort to any other means. One morning, being anxious to fulfil a particular engagement in good time, in his hurry he passed the stick farther up, and with less caution than usual, when it was suddenly sucked up into the body, beyond the reach of his fingers. This accident did not interrupt the free discharge of the fæces, and the same evacuation regularly took place every day, whilst the stick

remained in the gut. It was seven days afterwards when I first saw him; he was in a very distressed state, with every symptom of fever, tension of the abdomen, and a countenance expressive of the greatest anxiety. His relatives and friends were totally ignorant of the real nature of the case; and nothing less than the urgency of his sufferings could ever have prevailed upon him to disclose it to me. Such were his feelings on the occasion, that a violent hysteric fit was brought on by the mere recital of what he termed his folly.

Upon examination no part of the cane could be discovered; but one end of it was readily felt projecting, as it were, through the parietes of the abdomen, midway between the ilium and the umbilicus on the left side. The slightest pressure upon this part gave him exquisite pain. After repeated trials I was at length enabled, with a bougie, to feel one extremity of the stick lodged high up in the rectum; but without being able to lay hold of it with the stone forceps. To allay the irritation for the present, an emollient clyster, with tinct. opii ʒij., was given, which passed without the least impediment, and did not return. On the next examination, two hours after, I found the sphincter ani considerably dilated, and, by a continued perseverance to increase it, the

relaxation became so complete, that in about twenty minutes I was enabled to introduce one finger after the other, until the whole hand was engaged in the rectum. I found the bottom of the stick jammed in the hollow of the sacrum, but, by bending the body forward, it was readily disengaged and extracted. Its length was nine inches and a half, with one extremity very ragged and uneven.

For several days after the situation of the patient was highly critical, the local injury, joined to the perturbation of his mind, brought on symptoms truly alarming. At length I had the satisfaction of witnessing his complete recovery ; and he has ever since, more than two years, enjoyed good health, and the regular action of the bowels, without the assistance of medicine, or any other aid."

A man, æt. seventy-three, was admitted into the St. Marylebone Infirmary. He was delirious, and made his complaints very incoherently. He said there was a stick in his rectum, but no further information could be gained from him. He was seen by Mr. B. Phillips, who suggested that the sensation of something in the rectum might be caused by the enlarged prostrate, and that in his delirious condition the sensation of a foreign body was sufficient to impress upon his mind the idea that it was a

stick. He died the day after his admission ; and upon a post-mortem examination being made a stick rounded at each end was found, its superior extremity had penetrated through the sigmoid flexure of the colon into the peritonæal cavity.*

In the thirtieth volume of the " Medical Gazette "† is an account of a Greenwich pensioner, who was admitted into the infirmary on the 20th of October, 1814, having eight days previously introduced a large plug of wood into the rectum for the purpose of stopping a diarrhœa. It was with great difficulty extracted by Mr. M'Laughlan, surgeon to Greenwich Hospital.

In June, 1842, a man, æt. sixty, was brought to King's College Hospital labouring under obstruction of the bowels, which he attributed to having eaten a large quantity of peas six days previously. He expired while being carried in a chair up to the ward.

On examining the body after death upwards of a pint of gray peas was found in the rectum, they had been swallowed without mastication, and had undergone no alteration in passing through the alimentary canal, except becoming swollen by warmth

* " Medical Gazette," vol. xxix. page 846.

† Pp 461, 462.

and the absorption of moisture. The urethra was pressed upon, and he had had retention of urine for four days. The bladder was enormously distended, its apex reaching the umbilicus, and its base nearly filling the brim of the pelvis.*

Mr. Liston† removed from the rectum half a jaw-bone of a rabbit, which had been swallowed in a plate of curry.

Mr. Lawrence had a case in which a man had broken the neck of a wine bottle into his rectum; he gradually dilated the sphincter, introduced his whole hand, and removed it.

Custance mentions the case of a man who fell on an inverted blacking-pot, and had the whole of it forced up the rectum. Attempts were made for an hour and a half to dilate the sphincter, and remove it with a forceps, but in vain. The small end of an iron pestle was then introduced, till it touched the bottom, and, being held there firmly, was struck with a flat iron. At the second blow the pot was broken into several pieces, which were removed piece by piece with the forceps, or with the fingers. Next morning he laboured under severe intestinal inflam-

* "Medical Gazette," vol. xxx. pp. 605, 606.

† "Practical Surgery," by Robert Liston. Fourth Edition, 1846. P. 431.

mation, with incessant vomiting and excruciating pain over the whole belly; he died at night. The pot was two inches and three-eighths at the brim, an inch and a half at its base, and two and an eighth in depth.

CHAPTER XIX.

MALFORMATIONS OF THE RECTUM AND ANUS.

Malformations of the rectum and anus are not uncommon; some admit of being remedied; whilst, in others, surgery can do little.

CONTRACTION AND OCCLUSION OF THE ANUS.

The anal aperture is sometimes preternaturally small, either in consequence of a contraction in the extremity of the rectum or from the skin extending over the border of the sphincter. The opening may be only sufficiently large to allow the more fluid part of the meconium to drain away, or the size of the orifice may be such as to cause a difficulty in passing, but not entirely to prevent, the escape of excrementitious matters.

When the anus is merely contracted it must be dilated by tents and bougies. If an extension of the skin beyond the margin of the sphincter abridges the anal opening, several slight notches may be made in

it with a blunt pointed knife, and afterwards it may be dilated by the pressure of bougies.

Sometimes two anal apertures exist more or less distant from each other; the one may also be larger than the other, and give exit to the greater part of the contents of the bowels. Surgical interference will not be required if either opening be of sufficient size for the free discharge of the fæces; but if both be so small that the process of defecation cannot be properly performed, the septum between them must be divided, or that which corresponds most nearly to the natural position of the anus must be dilated by pressure, and by incision if necessary.

In other cases total occlusion of the anus exists, an anomalous condition much more common than either of the preceding forms of malformation. The structure closing the anus is not a continuation of the integument, but a lamina of fibro-cellular tissue. It is usually thin and transparent, permitting the meconium to be seen through it, and forming a small roundish prominence, which is most distinct when the child cries or strains. This bulging membrane communicates to the finger a doughy feel, and sense of obscure fluctuation; by pressure it is made to recede, but it re-appears immediately the finger is taken away. In some rare cases the membrane is

very thick and dense, especially at the circumference; the protrusion will then be less prominent, and the meconium will not be distinctly felt or seen.

An infant with imperforate anus must soon perish with symptoms resembling those of strangulated hernia, unless an opening is established for the exit of the contents of the bowel. When the membrane is thin and the nature of the case evident, no delay should take place; but if the membrane be thick, and we should be in doubt as to the continuation of the rectum, the operation may be delayed from twenty or forty hours, no mischief being likely to occur in that time; and during this period the intestine will become distended, and the condition of the parts be more clearly revealed.

The operation necessary to remedy this condition is very simple, and consists of making a crucial incision through the occluding membrane with a bistoury, and removing the intervening flaps with a pair of scissors; dilatation will also most probably be required. I was called to see a child of a poor woman, living in the neighbourhood of University College Hospital, that had the anus imperforate. It had been born about eighteen hours; the membrane closing the anus was thin, and rendered prominent by the contents of the intestine; with a lancet two incisions

were made crossing each other, and the intervening angular flaps removed; a tent was introduced at first, but no contraction ensuing, its use was very soon discontinued, and the infant progressed satisfactorily.

IMPERFORATE RECTUM.

The anus in some cases is well formed, and the bowel is continuous, but the meconium is retained by a membranous partition, which may be just within the anus, or an inch or more above it; as in imperforate anus, the membrane varies in thickness, but is usually thin, the nature of the case is made manifest by the retention of the meconium, and by digital examination, or by using a probe or a small elastic catheter or bougie. Dr. Bushe* mentions having seen in the dissecting-room, a child in whom two partitions across the rectum existed, the one was half an inch from the anus, the other three quarters of an inch above that.

In imperforate rectum the obstructing membrane must be incised by a narrow bistoury, carried up on the finger, or by a pharyngotamus, and bougies afterwards employed. When the membrane is thick we

* "A Treatise on the Malformations, Injuries, and Diseases of the Rectum and Anus," by G. Bushe M.D. New York, 1847. P. 40.

may not be able to tell whether the intestine is continuous above till we have made the incision ; but if it be thin it will bulge down upon the finger, and convey the like sensation as when the anus is closed by a membrane.

ABSENCE OF THE RECTUM.

The rectum is sometimes entirely absent, or it may be wanting in part only, the latter being the most frequent occurrence of the two. In either case there may be a well formed anus, and above it a small pouch a few lines in depth, or there may be no appearance of that opening, the integument being continuous from side to side.

When the last part of the intestinal tube is only partially absent, the other portion usually terminates in a cul-de-sac, at a greater or less distance from the surface of the body, or it may be prolonged as a narrow tube or imperforate cord, and blended with the adjacent parts. When the whole of the rectum is absent, the intestinal canal may open in some abnormal situation ; cases are recorded of the terminal opening being at the umbilicus ; of the ileum opening externally above the pelvis ; and two still more extraordinary cases, the one in an infant, with the inferior portion of the abdomen badly developed, and the intestine turning upward and opening under the

scapula ; in the other, the intestine mounted from the pelvis, through the chest into the neck, and opened on the face by a small orifice.

When a portion of the rectum is absent, it becomes the surgeon's duty to do all in his power to establish an outlet for the contents of the intestine, otherwise the child must inevitably perish. If the anus be natural, the prospects of success will be greater, the probability being that there is no considerable interval between it and the intestine ; also if he succeed in forming a communication, no ultimate inconvenience will be experienced. When the anus is present, the incisions must be made through it, but if it be absent, they should be commenced at the point it ought to have occupied. The child is to be held in the lap of an assistant, who should sit on a table before a good light ; the knees and thighs are to be flexed, and the perinæum presented precisely in the same manner as if the child were prepared for lithotomy. The surgeon sitting on a low chair, then commences an incision about an inch long, which is to be carried more and more deeply in the natural direction of the anus, following the curve of the sacrum ; the surgeon's forefinger of the left hand in the wound must guide the course of the knife. If the incisions be made directly upwards, or in the axis of the pelvis, the bladder or other parts of importance may be wounded,

but an opposite course must be avoided, or the surgeon will get behind the rectum. The dissection may be continued, if necessary, as far nearly as the finger can reach. Should the intestine be detected either by the feel and sense of fluctuation, or by being seen at the bottom of the wound, an opening is to be made into it, and the meconium evacuated; afterwards the opening must be maintained by the constant use of tents of prepared sponge, meshes of lint spread with ointment, and gum elastic bougies. But should we not be so fortunate as to discover the bowel, and as the child must certainly perish unless an opening be made, we must make one last effort to succeed; a moderate sized trochar and canula are to be inserted in the direction in which it is most likely to enter the intestine, and if successful, the trochar is to be withdrawn, and the canula left in the wound, and secured there by tapes. Most surgeons who have performed this operation have been unsuccessful in saving the lives of their patients; however, a few cases have succeeded. An interesting case of a child with imperforate rectum is recorded in Langenbeck's new "Surgical Bibliotheca;" the malformation was not discovered till twelve days after the child was born, when it was seized with hiccough and convulsions; the abdomen was protuberant and hard, pain was produced by pressure, and the child was much de-

pressed. An incision an inch in depth was made in front of the coccyx, but it did not penetrate the intestine ; it was then extended another inch but with no greater success. The operator then had recourse to the pharyngotamus, with which he succeeded in piercing the rectum. Glysters and tents were afterwards used, and the child lived. I have in my possession a preparation given me by my friend, Dr. Quain, namely, a case of malformation of the rectum, in which the intestine terminated in a closed sac. The preparation was presented to the Pathological Society, and the particulars of the case are published in the Society's Transactions.* The anus was perfect, through which an incision was made by the surgeon in attendance, but he was unsuccessful in opening the bowel, and the child died on the ninth day.

Mr. Benjamin Bell met with two cases in which the intestine was very distant from the integument. In both he succeeded in forming an anus, but found it very difficult to keep it pervious. A very eminent author remarks, "Though keeping the opening dilated may seem easy, to such men as have had no opportunities of seeing cases of this description, it is far otherwise in practice." In the ninety-eighth number of the "Edinburgh Medical Journal," is recorded a case in which the tendency to closure in the artificial anus

* Vol. i. page 280.

was so great that the operation had to be repeated ten times before the child was eight months old.

I imagine few English surgeons would propose to adopt the operation of Littre or Callisen for opening the descending colon, much less putting into practice that of Dubois, of opening the sigmoid flexure of the colon, and passing a strong probe through it towards the perinæum, by pressure rendering the end prominent, if possible, and then cutting down upon it. So formidable an operation upon a new-born infant could scarcely be otherwise than fatal. But though the surgeon may not be justified in proposing to open the colon from the groin, he may be compelled to undertake it at the urgent entreaties of the relatives of the child. He should distinctly state the uncertainty of a successful issue, and what will be the after condition of the patient if it survives. The manner of performing the operation is as follows:—The child being placed on a pillow, an incision about two inches in length is made midway between the anterior superior spinous process of the ilium and the pubis, a little above Poupart's ligament, in a direction parallel with the course of the epigastric artery; the integument, the several layers of muscles, and the transversalis fascia, are to be divided; the peritonæum being exposed, is to be pinched up, and an opening made by cutting hori-

zontally through it ; a director or the finger is then to be passed into its cavity, and the incision enlarged to the extent of the external one. If the intestine be now seen, it is to be brought close to the wound, and two double ligatures, near to each other, are to be passed through it, by which the intestine is to be secured to the margins of the abdominal opening ; after which, by making a longitudinal incision between the ligatures, the meconium will escape. If the child live, adhesive inflammation is set up between the peritonæal surfaces in apposition, and closes external communication with the cavity. The evils to be afterwards contended with are, a tendency in the external opening to close, the protrusion of the mucous membrane of the bowel, and excoriation of the integument from the irritation of the excretory matter, and the friction of the bandages, or apparatus used, to occlude the opening.

UNNATURAL TERMINATIONS OF THE RECTUM IN THE BLADDER AND URETHRA.

The rectum, instead of terminating at the anus is sometimes prolonged forwards in the form of a narrow tube, and opens into the posterior part of the urethra. This malformation is more common in males than females ; and in the former is more likely to be fatal from the length and narrowness of the urethra. In

most of these cases of malformation, some imperfection of development coexists, especially of the genito-urinary organs. The opening of the intestine is usually very small, and permits only the more fluid portion of the meconium to be evacuated.

In other instances, the intestine opens into the bladder somewhere between its neck and the part where the ureters enter ; in such cases the meconium and urine will be mixed ; but when the opening is urethral, a jet of meconium, or fæcal matter, will generally precede the urine.

In this species of malformation, the opening for the discharge of the contents of the bowel being so small, the child rarely survives more than a week, but instances are recorded of life being prolonged beyond that. Fortunatus Licetus* mentions a woman who voided her fæces through the urethra. Flagini† relates the case of an infant in whom about three inches of the rectum was wanting, the intestine terminating in a canal four inches in length, which passed under the prostate gland, and opened into the membranous portion of the urethra. The stercoraceous matter of course was voided with great difficulty by the urethra, nevertheless, the miserable

* " De Monstorum Causis Natura et Differentiis," lib. ii. cap. liii., 1616.

† " Osservazione di Chirurgia," tome iv. obs. 39.

babe lived eight months, and then only died in consequence of having swallowed a cherry-stone which lodged in the recto-urethral canal. Bravais* records the case of a boy four years and a half old, in whom the rectum, after becoming very narrow, opened into and appeared continuous with the urethra. Paulletier† also saw a similar case in a boy three years old. When the rectum terminates in the urethra, the surgeon must endeavour to dissect down upon the extremity of the intestine, and establish a more convenient and larger opening than that formed by nature. If the urethra opens in the under part of the penis, as is not uncommonly the case, it may be possible to pass a probe into the intestine, which may be felt by the finger in the wound, and then cut upon. But if the intestine terminates in the bladder, the operation must be conducted in the same manner as if the rectum were wanting. It has been recommended to cut into the neck of the bladder, but a successful issue would be more than doubtful.

THE RECTUM TERMINATING IN THE VAGINA.

When the rectum terminates in the vagina, the opening is much larger than when it terminates in the

* "Actes de Lyon," tome iv. p. 97.

† "Diction. de Scienc. Med." tome iv. p. 157.

urethra, and will also admit more easily of being remedied. The opening may be either in the posterior or lateral wall of the vagina.

Although there is a greater probability of an infant living with this condition of parts, yet much suffering and inconvenience must arise from it; thus the mucous membrane will be excoriated, ulceration induced, and abscess may form in the adjacent cellular tissue.

Should the rectum terminate in a pouch, an opening from the natural position of the anus may very readily be made into it, by passing a blunt hook or bent probe through the recto-vaginal aperture, and rendering its extremity salient in the perinæum, which will then be a guide for the knife. The artificial opening must be kept patent by tents and bougies. But sometimes the rectum tapers considerably before opening into the vagina, in which case an incision must be carried backward to a sufficient extent through the portion of the vaginal partition that is below the opening; a canula is then to be passed into the bowel and retained by tapes. The anterior part of the wound is to be brought together by sutures; great attention to cleanliness will be necessary to promote the union of that which is to form the recto-vaginal septum.

THE RECTUM OPENING IN THE SACRAL REGION.

La Faye, in page 358 of "Principes de Chirurgie," records a case of deficiency of a portion of the sacrum, the rectum opening at the lower part of the back.

THE RECTUM TERMINATING IN A COMMON OPENING WITH THE GENITO-URINARY ORGANS.

As Andral expresses himself, there sometimes appears to be a tendency in the terminal orifices of the digestive, urinary, and genital canals to be confounded together in a cavity more or less analogous to the cloacæ of birds. Sometimes the urethra occupies its normal position, and the recto-vaginal septum may be partially or entirely absent. All these malformations depending of course on an arrest in the development in various degrees of one or other of the stages through which the parts pass in their formation.

OTHER ORGANS TERMINATING IN THE RECTUM.

The lusus of the ureters opening into the rectum has been seen, but it is an anomalous condition extremely rare.

CHAPTER XX.

HABITUAL CONSTIPATION.

HABITUAL constipation is one of the most prevalent and troublesome functional disorders to which mankind is subject. Its sympathetic effects extend to every organ of the body, and often occasion great distress and anxiety to the sufferers, leading them to apprehend the existence of the most serious organic disease. Neither can it be doubted that many of the pathological changes in structure of the viscera of the head, chest, and abdomen, have their origin in functional derangement, induced either sympathetically by constipation and consequent derangement of the assimilative organs or by the retention of excrementitious matter. Of the sympathetic effects on the brain and nervous system thereby induced we have evidence during infancy and youth in convulsive fits, chorea, and other nervous affections, and in adults in the giddiness, drowsiness, headache, pains extending to various parts of the body, and that distressing mental depression denominated hypochon-

driasis, which not unfrequently terminates in permanent perversion of intellect, or even in a more distressing manner. The sympathetic effects on the lungs and heart are indicated by cough and palpitation. The reaction on the stomach is marked by disordered appetite, vomiting, eructations, and a sense of gnawing and sinking at the precordia. We have evidence of the kidneys being affected in their morbid secretions as marked by the various deposits we find in the urine. The exhalant functions of the lungs and skin also become deranged, as indicated by the fœtor of the breath and perspiration; and many of the distressing and unsightly diseases of the skin have their origin in constipation and morbid accumulations in the bowels. Nor do the genito-urinary organs escape; thus urethral, vaginal and uterine discharges and irritability of the bladder are frequently induced. The countenance of those who are the subjects of habitual constipation is dull and heavy, the eyes lack their lustre, and the tongue is observed to be deeply notched transversely. It has been shown that many of the affections treated of in the preceding chapters often have their origin in this common cause.

To enter fully into the causes, symptoms, and remote sympathetic diseases and effects of constipation would far exceed the limits and objects of the pre-

sent work, but a few remarks on the most common causes of constipation, depending on torpor of the colon, and the means of obviating that condition, will not be out of place.

Habitual constipation as a constitutional effect occurs in those whose vital powers are naturally low, thus during the earlier periods of life we most frequently meet with it in delicate females; but as age advances, and the organic functions become enfeebled, we find it prevailing in either sex. The most frequent accidentatal causes are sedentary habits, and the very common practice of not attending to the first calls of nature to evacuate the bowels. Fæcal accumulations are thus favoured, the bowel become distended, and in some instances to an amazing extent; its vital contractility is diminished, and it is rendered incapable of expelling its contents. Yet, notwithstanding this condition, both patient and medical attendant often do not suspect the real mischief that exists, from the fact that diarrhœa may at the same time be present, consequent on the irritation induced by the overloaded state of the bowel. I have many times been consulted by patients, suffering from the effects of fæcal accumulations, who assured me their bowels invariably acted regularly each day; and what they asserted was quite correct; yet they were the subjects of torpor of the colon and

fæcal accumulations. On inquiring more particularly into such cases, it will be discovered that though the bowels have been moved daily, the evacuations have been scanty, and that a sense of fulness and discomfort in the bowel remain; the fact being, that accumulations had been gradually increasing, and the softer and more recent excrementitious matter had passed over that which had been retained and become hardened.

The habitual use of large and warm enemata relax and distend the rectum, and enervate its functions; one of the effects of which is to promote the occurrence of a form of intussusception and slight invagination of the bowel, the upper portion descending into the lower, occasioning many distressing symptoms; a dull heavy pain and fulness is felt in the loins and sacral region, defecation is difficult and painful, and the calls to stool frequent; the evacuations are small, or passed in lumps; or being rendered fluid, from an increased secretion from the mucous surface, the result of irritation, are ejected as if from a syringe. These symptoms often induce a suspicion of the existence of stricture of the rectum, and the suspicion, although entirely groundless, may be apparently confirmed, if an endeavour be made to pass a bougie, and it be arrested in the edge or fold of the semi-prolapsed portion of the intestine.

In the treatment of habitual constipation, the object to be attained is the removal of the cause, to procure fæcal evacuations by the mildest and least irritating means adequate to the purpose, to restore the lost tone, and prevent the recurrence of the torpid condition of the bowels.

It is too frequently the case, that most inappropriate means are adopted to remedy this condition. Many people are in the habit of dosing themselves with calomel or blue pill, and black draught, or saline purgatives, which besides teasing and tormenting the upper part of the alimentary canal for no fault of its own, is productive of very temporary relief and much permanent harm. I could cite innumerable instances which have come under my own cognizance, of the mischief that has thus been induced, and many practical writers have made the same observation. Dr. Graves,* in his very valuable lectures on Clinical Medicine remarks, "Various causes have combined to render blue pill and calomel almost popular remedies, to which many have recourse when their bowels are irregular, or the stomach out of order. Indeed, it is quite incredible what a number of persons are in the habit of taking these preparations, either singly, or combined with other purga-

* "Clinical Lectures on the Practice of Medicine," by Robert J. Graves, M.D. Second Edition, vol. ii. page 213.

tives, whenever, to use the common expression, they feel themselves bilious. This habit, sooner or later, induces a state of extreme nervous irritability, and the invalid finally becomes a confirmed and unhappy hypochondriac; he is, in fact, slowly poisoned, without the more obvious symptoms of mercurialization being at the time produced."

Should the rectum and colon be distended by fæcal accumulations, they must be dislodged before we can possibly effect any benefit; for which purpose enemata will be the most efficient means; and the only effectual mode of administering them, is by a long elastic tube.

In overcoming habitual constipation, much may be done without medicine. In attaining this object, it is essential that the patient should "solicit nature" at a certain period of the day, immediately after breakfast being the best time. By allowing the mind to be occupied, and as it were directing the attention to the subject shortly before visiting the closet, the desire will very probably occur. The influence of the mind is strongly marked in two gentlemen I am acquainted with; both are very regular in their habits, and are accustomed to evacuate their bowels shortly after breakfast; should circumstances occur, obliging the one to take his morning meal at an earlier hour than usual, he is unable to relieve

himself, unless the organic functions are roused through the influence of the mind by thinking on the subject while he is dressing, and invoking as it were, the assistance of nature. The converse is the case in the other gentleman, if anything unusual occupies his attention early in the morning, temporary constipation ensues, which he is unable to overcome by any effort without the assistance of artificial means; headache, flatulence, acid eructations, and pain at the epigastrium ensue, which continue till the rectum is freed, either by an enema or the return of his accustomed time of relieving the bowels, when the symptoms instantly subside.

Exercise is most important to the proper performance of defecation, and no one has a right to expect the enjoyment of health, unless he devote at least one or two hours every day to walking or riding. A glass of cold clear spring water taken early in the morning, and friction of the abdomen with the hand while at the closet, will materially assist in promoting the peristaltic action of the intestines.

However, the simple means suggested will not always be sufficient to accomplish our object, and it may be necessary to have recourse to medicines. Saline aperients afford temporary relief, but they afterwards increase the tendency to constipation, and

induce debility of the stomach and small intestines. The combinations that I have found most useful, are stomachic bitters and aperients, as the decoction of cinchona or compound infusion of gentian, with infusion of senna; dilute sulphuric acid and sulphate of magnesia in one of the bitter infusions, or the infusion of roses; seidlitz powders, with tincture of calumba and compound tincture of cardamoms. A teaspoonful of the following electuary taken at bedtime, will in many cases have the effect of procuring a copious evacuation in the morning.

℞ Confectionis Sennæ, ʒiii.
Potassæ Bitartratis, ʒvj.
Ferri Carbonatis, ʒiij.
Syrupi Zingiberis, q. s.
M. fiat electuarium.

Nitric acid with infusion of bark without the addition of any aperient, will often give tone to the intestines, and produce a regular action. The compound extract of colocynth with quinine, to which, if necessary, one or two grains of blue pill may be added; or equal parts of the compound galbanum pill with the compound rhubarb pill will be found useful; to the foregoing I have, in some cases, added with advantage the oxide of silver. The extract of nux vomica in combination with an aperient pill, has a powerful influence in relaxation of the rectum; or the alkaloid strychnia

in the proportion from a thirtieth to a fiftieth of a grain for a dose may be prescribed with either of the foregoing mixtures. But lavements are the most important of all remedies in relaxation of the rectum ; these should be the least irritating, so that the bowel may not be habituated to this means of stimulation, and they should not exceed in quantity half a pint. I have seen important benefit result from the injection of six or eight ounces of cold water after each dejection, and its retention as long as possible ; when the relaxation has existed for some time, it may be necessary to add some vegetable or mineral astringent.

In concluding, I may recapitulate in a few words the principles on which habitual constipation is to be treated. In the first place it is highly essential that all who are able should take daily exercise, short of fatigue ; if, from bodily debility or other cause, the patient is unable to leave the house, frictions of the abdomen at the closet, or whilst he is in bed, should be had recourse to ; a regular period should be observed for evacuating the bowels, and if the nisus does not occur, the mind should be made to dwell on the subject a short time previously, that the desire may be provoked ; a glass of cold water taken early in the morning will often influence the action of the bowels. Enemata of cold water, with or without the addition

of astringents, used after dejection, are important adjuncts in the treatment of habitual costiveness. When it becomes necessary to prescribe medicines to be taken by the mouth, they must be so combined, that, whilst they unload the bowels, they may strengthen and impart tone to them, and drastic purgatives which produce debility of the intestinal canal should be avoided. The diet of the patient must be regulated : breakfast should consist of weak cocoa, which is preferable in most cases to tea or coffee, with dry toast and fresh butter ; with some people, brown bread is very useful in promoting the action of the bowels, yet in others it will induce pain at the epigastrium, flatulence, and heart-burn. If the patient dine late, he may take a plate of thin soup, or a sandwich and a glass of water, for luncheon ; at dinner he may partake of a moderate quantity of well-cooked vegetables, with brown meats well done ; white meats are to be avoided, being less digestible ; a very general opinion prevails that chicken is more easy of digestion than beef and mutton, but the converse is in fact the case ; pastry must not be allowed, but there is no objection to light farinaceous puddings, or the Italian pastes, as macaroni, vermicelli, &c., which are highly nutritious and easy of assimilation. According to circumstances, wine may or may not be taken ; though a different opinion

formerly prevailed, the French and Rhenish wines are more wholesome than port and sherry. Spain and Portugal grow many excellent light wines, but, from the little encouragement given to commerce by the governments of these countries, and the heavy import duties, they seldom find their way to England. If any reason exist that wine cannot be taken, weak cold brandy and water may be substituted. In the evening, a cup of coffee, tea, or cocoa, and a biscuit, may be permitted; but the habit of taking wine or spirits before going to bed is to be entirely discountenanced. By the adoption of the plan suggested, and implicit obedience on the part of the patient to the rules laid down, we shall not often be defeated in our attempts to restore him to health and comfort.

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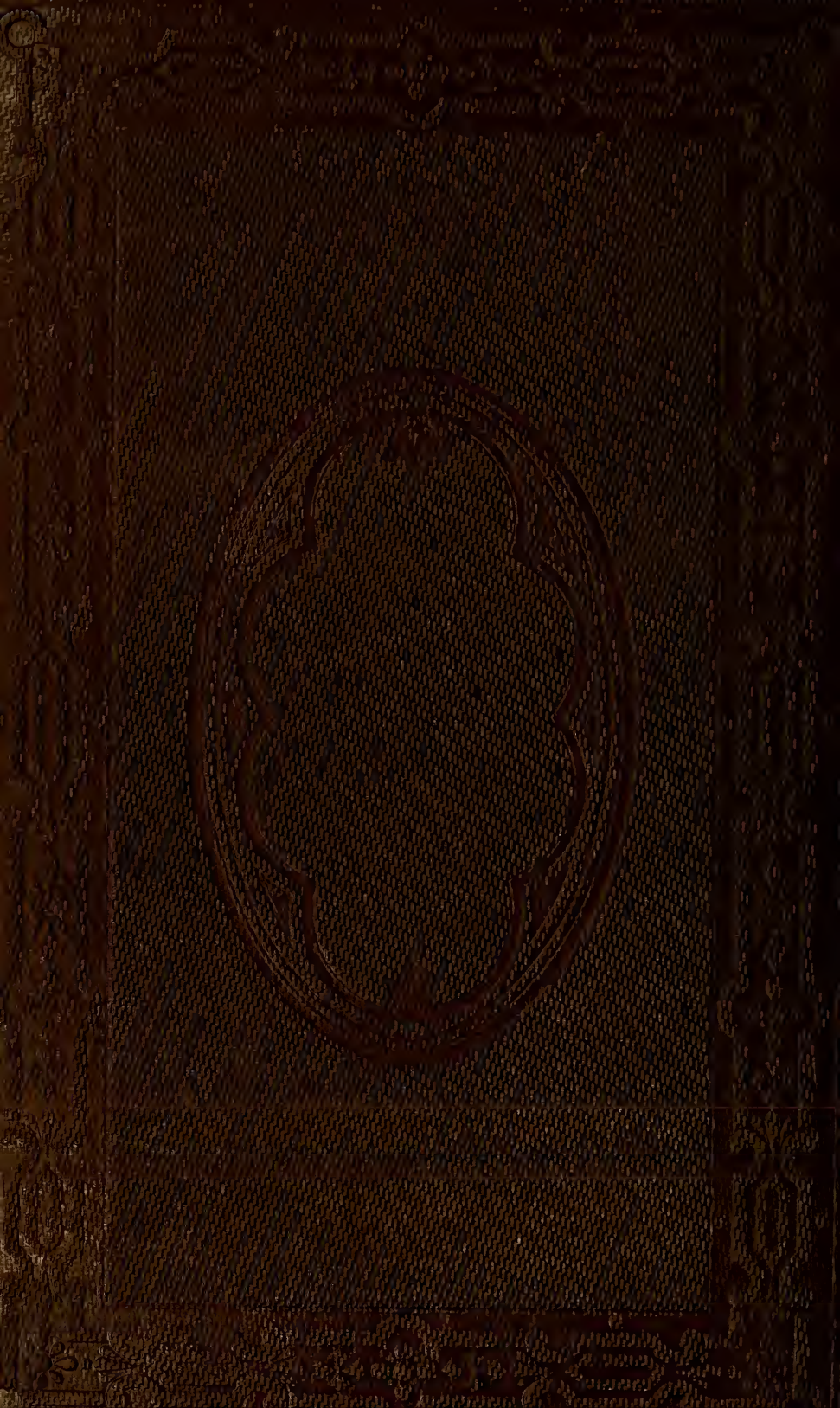
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